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COST OF LIVING IN THE DISTRICT OF COLUMBIA.

SIXTH ARTICLE—WAGE-EARNING WOMEN: FOOD, HOUSING, AND SUNDRIES.

The preceding article of this series discussed the clothing expenditures of wage-earning women in the city of Washington as developed in the present investigation. It also sought to bring out, in a very general way, the expenditure necessary, for a working woman in that city, to maintain a condition of dress that would meet the tests of physical comfort, social decency, and agreeable outward appearance.

An analysis, along quite similar lines, may be made as regards the expenditures for food and lodging. In the following brief presentation of the results of the present study on this subject, it must be borne in mind that the investigation was made in the spring of 1917. In the months since then, as a result of the great influx of people into the District of Columbia combined with the general rise in prices, there have been very general and very marked advances in the cost of rooms and meals. To just what extent this has affected the housing conditions of the women included in this study is not known. But, in a general way, it is known that, for many of them at least, wages did not increase as rapidly as rents and prices, and, as a result, for practically all wage-earning women in Washington the problem of food and lodging is now an even more serious one than it was 8 or 10 months ago.

VARIOUS METHODS OF LIVING.

Of the 600 white wage-earning women covered by the present study, 414 were living at home with their immediate families, all but 51 of these living with parents. The remaining 186 lived away from home, either in private families, in commercial boarding houses, in working girls' homes, or were housekeeping on their own account.

In certain employments the number of women living away from home was proportionately much greater than in others. Thus, of the 12 waitresses scheduled only 2 were living at home, whereas 29 of the 38 telephone girls were so living. Among store employees about one-third were living away from home. The distribution, on this

point, of the 600 women scheduled, is shown in the following table, which also classifies these women by marital condition:

TABLE 1.—LIVING CONDITIONS AND OCCUPATION.

	Total.	At home.	Away from home.				
			Total.	Private families.	House-keeping.	Boarding houses.	Institutions.
Single.....	542	399	143	72	31	23	17
Married.....	58	15	43	12	27	2	2
Total.....	600	414	186	84	58	25	19
United States.....	63	33	30	15	8	4	3
Office.....	172	140	32	14	8	7	3
Store.....	192	133	59	30	11	10	8
Telephone.....	38	29	9	6	2	1	1
Factory.....	95	63	32	12	18	1	1
Waitress.....	12	2	10	2	5	3	.....
Laundry.....	28	14	14	5	6	.....	3
Total.....	600	414	186	84	58	25	19

As regards the 414 women living at home little can be said as to the character or cost of their food and lodging. Often such women were assisted by their families and paid only a nominal board. On the other hand, such women were often supporting their families in whole or in part and turning in all their surplus money to the general family fund. In practically all cases of women living at home, therefore, the amount paid to the family was not determined by commercial reasons and was not a measure of the accommodation received in return.

In the case of women living away from home, board and lodging are usually placed upon a strictly business basis, but not always even then. The strict commercial relationship is most clearly marked in the case of the usual boarding house, where the payments by the boarders must cover all expenses of maintenance. The financial basis is also clearly marked in the case of a woman who is doing house-keeping on her own account, renting a room or rooms and preparing her own meals. In case of board in a private family the personal factor sometimes enters. The family may charge less than the market price because of friendship or relationship or simply for the sake of companionship. In the case of working girls' homes the rates charged are usually below what they would be if the homes were conducted on a commercial basis, and very often the rates are fixed not upon cost but upon the earnings of the girls.

The woman living away from home has the choice of four alternative ways of living. These, as noted, are: With private families, in commercial boarding houses, housekeeping in one or more rooms, and living in homes established for working girls. Certain combinations

of these methods are possible but in practice were found not to be frequent.

Each of these ways of living has its merits and demerits. The cheapest accommodation is found in those working girls' homes in which the rates are in proportion to the earnings of the girls. But, aside from the objections that many women have to such homes, the total accommodation of all such establishments in Washington is too small to have much influence upon the situation.

Housekeeping—i. e., renting a room or rooms and getting one's own meals therein—was preferred by many women because such a method of living may be made most to approximate a true home. Married women appeared particularly favorable to this form of living. Of the 43 married women not living at home 27, or nearly two-thirds, were housekeeping. This is probably explained by the fact that married women in most instances have had a taste of maintaining a home of their own and where possible prefer to keep on with it. A good many of them, also, have some equipment left from former housekeeping experiences as well as some practical experience to guide them on the way. Housekeeping, too, is undertaken by many women for reasons of economy. By cooking on a gas stove, or even a gas jet in one's room, and buying cheaply, the cost of food may be reduced to a minimum. The evil here is, of course, that not only is the food usually badly chosen but this form of living is conducive to an economy that may easily border on starvation.

THE COST OF LODGING AND FOOD.

Because of these varying methods of living and the absence of agreed-upon standards of adequacy in housing no precise conclusions can be drawn as to the cost of satisfactory food and lodging in the city of Washington; but by studying separately the actual living conditions of each of the four groups mentioned a fair idea may be obtained of the cost of food and shelter for a working woman in Washington. In doing so, a rough standard of adequacy is necessarily adopted. It is: A furnished room, occupied alone and adequately heated, sufficient palatable food to provide nourishment necessary for the work performed, and the use of sitting room to receive company.

A careful study of the experiences of the various women included in this study leads to the conclusion that \$6 per week was the bare minimum upon which the average woman could obtain adequate board and lodging in Washington in the early part of 1917, and that a somewhat larger amount was necessary to insure any considerable degree of comfort. This was arrived at by an analysis of the actual amounts spent and the accommodations received by groups of women living in the four ways above mentioned—(1) private families, (2) boarding houses, (3) housekeeping, and (4) working girls' homes.

(1) Private families.

In considering the cost and character of the living accommodations of women living in private families, it seems best to limit attention to those who were boarding in families with which there was no close relationship, as such relationship often complicated the question of the commercial value of the living secured. Of the women covered by this study, 52 were without this limitation. In Table 2 are listed for each of these 52 women separately, her age, occupation, and income; also the amount paid for room and board, and a brief description of the character of the accommodation received for the money paid. The weekly rate shown was the rate paid at the end of the scheduled year and in some cases exceeded the weekly income. This meant that the individual in question was living, at that particular time, beyond her income.

Examination of this table shows clearly that the five cases where less than \$4 per week was paid were abnormal. One woman worked three or four hours a day to help in paying for her board; another had all meals provided at her place of employment; a third shared a room with two other girls; a fourth had one meal furnished at place of employment besides sharing her room with the landlady; and a fifth both shared her room and helped with housework.

For the 18 women paying \$4 and under \$5 weekly, the living accommodations of only 3 were apparently devoid of defects. In the other cases the women either gave considerable help with the work, shared their rooms with others, had inadequate heat, or else had some meals furnished outside; in many cases a combination of these was operative.

Of the 14 women paying \$5 and under \$6, only 2 were apparently getting a fair standard of living.

Eleven women were paying \$6 and under \$8, and of these 6 had comfortable rooms and adequate board.

Thus it would seem safe to conclude that, although in exceptional cases room and board were obtained at a weekly cost of under \$6, not until the \$6 mark was passed could a woman under ordinary circumstances obtain fairly adequate living conditions in a private family.

TABLE 2.—COST OF ROOM AND BOARD IN PRIVATE FAMILIES.

Age.	Occupation.	Annual income.	Weekly rate for food and lodging.	Character of accommodation.
31	Saleswoman.....	\$212.25	\$1.25	In addition worked 3 or 4 hours a day.
22	Waitress.....	390.00	1.40	Received all meals at place of employment. Very small room.
18	Tailor work.....	274.00	3.00	Shared room with 2 other girls.
26	Cashier (office).....	454.00	3.50	Received 1 meal at place of employment. Shared room with landlady.
22	Telephone.....	525.27	3.63	Shared room with cousin. Helped 30 minutes a day with housework.

TABLE 2.—COST OF ROOM AND BOARD IN PRIVATE FAMILIES—Concluded.

Age.	Occupation.	Annual income.	Weekly rate for food and lodging.	Character of accommodation.
26	Factory.....	\$226.00	\$4.00	Third-floor room. No sitting room in house. Bought many meals outside.
20	Office.....	329.00	4.00	Room insufficiently heated. Helped 30 minutes a day with housework.
20	Telephone.....	504.84	4.00	25-minute ride to work. Otherwise apparently satisfactory.
22	Factory.....	403.50	4.14	Very small room and very cold; shared with another woman.
27	Saleswoman.....	446.55	4.20	Lived with aunt. Helped 8 or 9 hours a week with housework.
29	.....do.....	775.50	4.30	Lived with friends. Shared room; 30-minute ride to work.
33	Waitress.....	712.37	4.38	Received 2 meals a day at place of employment. Shared room.
30	Saleswoman.....	297.00	4.50	Shared small room with daughter of landlady.
24	Office.....	556.00	4.50	Apparently satisfactory.
23	.....do.....	585.00	4.50	Shared room with daughter in family. Helped with dishes at night.
25	Saleswoman.....	545.50	4.60	Lived with aunt. Shared room. Helped some with housework.
22	Telephone.....	437.00	4.62	Insufficient heat. Lived with friends and helped 8 hours a week with housework.
24	United States (Bureau of Engraving and Printing).	542.65	4.62	Shared room. Helped 1 hour a day with housework; 35-minute ride to work.
29	.....do.....	547.20	4.62	Shared room. Helped 30 minutes a day with housework; 30-minute ride to work.
50	Factory.....	428.25	4.68	Shared room with landlady. Furnished own bed and rug; 45-minute ride to work.
33	.....do.....	447.00	4.71	Lived with cousin. Shared room; 30-minute ride to work.
27	United States (clerk).....	787.16	4.80	1-hour ride to work. Otherwise satisfactory.
33	Office.....	523.50	4.90	Lived with cousin. Helped 30 minutes a day with housework.
28	Factory.....	388.50	5.00	Shared room with 2 others. Helped some with housework. Did 2 weeks' dressmaking for family.
35	Saleswoman.....	500.00	5.00	Small, unheated room. Helped 6 hours a week with dishes. Took care of own room.
19	Office.....	491.00	5.02	Shared room; 25-minute ride to work.
32	United States (Library).....	815.50	5.19	Apparently satisfactory.
36	Saleswoman.....	470.43	5.20	Lived with aunt. Helped 15 hours a week with housework; 45-minute ride to work.
20	United States (stenographer)	866.50	5.38	Lived with aunt. Helped some with work; 25-minute ride to work.
30	Saleswoman.....	492.37	5.40	Helped 30 minutes a day with housework.
42	.....do.....	614.00	5.45	Lived with friends. Apparently satisfactory.
17	Office.....	566.00	5.49	Shared room with another girl.
23	Laundry.....	336.25	5.50	Lived with mother-in-law. Shared room.
28	United States (Bureau of Engraving and Printing).	505.80	5.59	Lived with aunt. Shared room. Helped 30 minutes a day with housework; 30-minute ride to work.
28	Saleswoman.....	500.00	5.65	Shared room 12 weeks with dependent son.
27	United States (Bureau of Engraving and Printing).	540.15	5.73	Shared room. Insufficient heat.
29	.....do.....	541.60	5.84	Room insufficiently heated.
36	Saleswoman.....	420.00	6.00	Apparently satisfactory.
48	.....do.....	433.00	6.00	Insufficient heat.
39	.....do.....	781.50	6.00	One roommate.
20	Telephone.....	556.29	6.20	Lived with aunt. Shared unheated room. Helped 30 minutes a day with housework; 30-minute ride to work.
31	Office.....	785.00	6.28	Apparently satisfactory.
28	United States (Bureau of Engraving and Printing).	631.68	6.37	Shared room with landlady's two daughters. Insufficient heat. Helped 30 minutes a day with housework.
45	Saleswoman.....	867.00	6.47	One roommate; 30-minute ride to work.
34	.....do.....	719.00	6.64	Apparently satisfactory.
28	Office.....	605.00	6.85	Do.
40	United States (Bureau of Engraving and Printing).	749.84	7.02	Do.
34	.....do.....	784.00	7.06	Apparently satisfactory; 45-minute ride to work.
34	United States (stenographer)	1,010.00	8.00	Apparently satisfactory.
31	United States (Bureau of Engraving and Printing).	721.00	8.19	Apparently satisfactory; 30-minute ride to work.
33	United States (Library).....	1,096.00	10.02	Apparently satisfactory; 40-minute ride to work.
35	.....do.....	1,014.00	11.66	Do.

(2) Commercial boarding houses.

Twenty-two of the self-supporting women visited were living in commercial boarding houses. The only ones who were paying under \$4 per week were 3 waitresses, each of whom received at least two meals daily at her place of employment. Only 1 of the 5 women paying \$4 and under \$5, was even fairly comfortably situated, and in this case the neighborhood was undesirable; in the other 4 cases there were very definite drawbacks.

Five women were paying \$5 and under \$6 per week, and of these only 1 seemed to be getting a fair standard of living. The remaining 9 women were paying between \$6 and \$8 weekly, and not more than 4, or less than half, had comfortable rooms and adequate food.

In this group the line of demarcation is not distinctly drawn, but clearly satisfactory accommodations in commercial boarding houses could not be obtained, except in occasional instances, for less than \$6 per week, and even at a weekly rate of from \$6 to \$8 comfortable food and lodging could not be assured.

Table 3 gives the details regarding the living conditions of this group of 22 women.

TABLE 3.—COST OF ROOM AND BOARD IN COMMERCIAL BOARDING HOUSES.

Age.	Occupation.	Annual income.	Weekly rate for food and lodging.	Character of accommodation.
20	Waitress.....	\$367.50	\$1.50	Received 3 meals daily at place of employment. Shared room with 3 sisters.
32	do.....	324.50	2.25	Received 2 meals daily at place of employment. Shared room with another girl.
21	do.....	491.00	2.38	Received 3 meals daily at place of employment.
21	Saleswoman.....	349.97	4.22	Took many of her meals with friends. Bought breakfast and lunch at store at reduced rate.
21	Office.....	469.83	4.24	One roommate. Helped 30 minutes a day with housework.
26	Saleswoman.....	480.48	4.55	One roommate.
19	do.....	423.50	4.75	Apparently satisfactory.
23	do.....	316.50	4.85	One roommate.
21	do.....	373.00	5.00	Very small, unheated room. No use of sitting room.
28	United States (Bureau of Engraving and Printing).	516.25	5.31	Apparently satisfactory.
24	Saleswoman.....	513.47	5.40	One roommate.
33	do.....	533.00	5.42	Not always sufficient heat.
36	United States (Bureau of Engraving and Printing).	547.75	5.73	One roommate. Thirty-minute ride to work.
35	Saleswoman.....	450.00	6.00	Very small room. No use of sitting room.
26	Office.....	711.00	6.15	Insufficient heat. One roommate.
42	Seamstress.....	407.00	6.39	No use of sitting room.
28	Office.....	575.00	6.50	One roommate.
29	United States (Bureau of Engraving and Printing).	584.32	6.55	Apparently satisfactory. Thirty-five minute ride to work.
35	do.....	620.00	6.78	Insufficient heat. Inconvenient to use sitting room.
40	Office.....	955.00	6.81	Unfurnished, but very large room.
24	do.....	539.00	6.97	One roommate.
32	Saleswoman.....	900.00	7.95	Small room. Insufficient heat.

(3) Housekeeping.

In this group are included all of the women visited who cooked at least one of their daily meals in their rooms or apartments. There were 54 self-supporting women coming within this group. Table 4 lists these 54 women according to the total weekly cost of room and meals combined.

The weekly costs among these women varied greatly—from \$2.03 to \$10.67. The tendency among the lowest-paid women living in this way seems to have been that of cutting down in every possible way on food in order to make the adjustments necessary to bring their expenditures within the range of their income. Thus, for the 13 women receiving an income below \$300 per year who chose to live in this way the dominant reason was doubtless that of economy. On the other hand, many of the women in higher income groups prefer this method of living since it brings a greater independence and a place they can call their own.

In analyzing the rates paid it may be noted that there were only 3 with expenses below \$3 a week and all 3 of these were provided with at least two meals a day at their place of employment. In the 8 cases of women with expenses of \$3 and under \$4 per week, 2 were furnished with extra meals, a third had free rent, another had a small room under the roof heated only by an oil stove, a fifth had a small, unheated room, a sixth had an unfurnished room which she heated with a gas stove, while the remaining 2 practically starved themselves in their efforts toward economy. Fourteen housekeeping women paid \$4 and under \$5 per week. Of these, 2 regularly had meals provided with their employment, 2 were invited out so much as to materially reduce their food expenditure; in 4 cases the rooms were unfurnished and in 4 cases the tenants had to provide their own heat. Of the remaining women who paid between \$4 and \$5, 2 lived with friends and 2 shared their apartments with relatives, paying a little less than half the total expense.

Of the 6 housekeeping women paying \$5 and under \$6 per week only 1 was able to provide adequate housing and food and she was sharing a 3-room apartment with her son. Sixteen women were paying \$6 and under \$8, and of these 13 were apparently comfortably situated, the majority sharing a small apartment with some friend or relative and sharing equally the expense. Thus, it seems quite evident that under normal circumstances at least \$6 a week was necessary for a housekeeping woman to maintain the minimum of decent comfort even when the utmost economy was practiced. The weekly expenditure shown for food and room was the expenditure at the end of the scheduled year, and in some cases exceeded

the weekly income. This meant that, at that particular time, the individual in question was living beyond her income.

TABLE 4.—COST OF ROOM AND BOARD FOR WOMEN HOUSEKEEPING.

Age.	Occupation.	Annual income.	Weekly expenditure for food and lodging.	Character of accommodation.
29	United States (charwoman).	\$240.46	\$2.03	Earned two meals a day by extra work at hospital.
36	Waitress.....	551.00	2.81	Three meals a day six days a week received at place of employment.
24	.....do.....	440.00	2.82	Received two meals a day at place of employment.
65	Saleswoman.....	415.00	3.00	Free room in apartment of son-in-law.
49	Laundry.....	213.58	3.10	Shared room with daughter and grandson. No use of sitting room. Insufficient food.
59	Dressmaker.....	248.06	3.54	Room under roof, oil stove; one small window. No sitting room.
29	Saleswoman.....	258.00	3.57	Small, unheated room.
28	Waitress.....	339.00	3.68	Received two meals a day for 20 weeks and three meals for 26 weeks at place of employment.
36	Laundry.....	239.20	3.69	Went with insufficient food and clothing to care for children. No sitting room.
50	Factory.....	435.00	3.75	Received two meals a day while working 22 weeks as a dressmaker. No sitting room.
45	.....do.....	281.00	3.93	Unheated, unfurnished room. (Expenditure included price of fuel for stove.)
55	Laundry.....	253.33	4.00	Small, unheated room with friend. (Expenditure included price of fuel for oil heater.)
19	Saleswoman.....	323.00	4.00	One roommate. Shared small apartment with cousin, who paid a little more than half.
45	Factory.....	278.00	4.16	Small, unheated room. No sitting room. (Expenditure included price of fuel for oil stove.)
28	Office.....	726.50	4.42	Two roommates. Insufficient heat. Invited out to many meals.
49	Factory.....	361.00	4.50	Small, unfurnished room with friends.
32	Waitress.....	603.50	4.53	Shared three-room apartment with two other girls. Received two meals a day at place of employment.
22	.....do.....	336.00	4.58	One roommate.
27	Office.....	764.00	4.63	One roommate. Insufficient heat part of time. Invited out a great deal.
22	.....do.....	440.00	4.66	Shared three-room apartment with mother, who pays a little more than half.
21	Telephone.....	415.00	4.68	Large hall room with private family.
55	Dressmaker.....	394.00	4.73	Received lunch always where working and sometimes breakfast and supper.
55	Laundry.....	260.00	4.75	Unfurnished, unheated room. All clothing given second hand. (Expenditure included price of fuel for stove.)
35	Saleswoman.....	542.00	4.85	Unfurnished, unheated room. No sitting room. (Expenditure included price of fuel for stove.)
31	.....do.....	295.00	4.88	Unfurnished room with insufficient heat.
35	Laundry.....	238.10	5.00	Insufficient heat. (Oil stove.)
75	Factory.....	294.00	5.00	Unfurnished room in office building. No sitting room.
21	Saleswoman.....	261.91	5.05	Two roommates. No sitting room. (Gas stove for heating.)
45	Factory.....	409.00	5.08	Apparently satisfactory. Shared 3-room apartment with son.
58	.....do.....	385.75	5.11	No sitting room.
31	United States (Bureau of Engraving and Printing).	553.70	5.73	Insufficient heat. One roommate after July.
40	.....do.....	726.18	6.06	Insufficient heat. Two roommates.
55	Factory.....	410.00	6.15	No sitting room.
50	.....do.....	415.00	6.26	Apparently satisfactory. Shared apartment with daughter.
45	Saleswoman.....	618.00	6.61	Apparently satisfactory. Shared apartment with sister.
23	United States (Library).....	520.00	6.79	Apparently satisfactory. Shared apartment.
26	Office.....	802.00	7.01	Apparently satisfactory. Shared apartment with mother.
26	.....do.....	681.00	7.04	Apparently satisfactory. Shared apartment with another girl.
45	.....do.....	550.00	7.06	Apparently satisfactory. Shared apartment with cousin who was partly dependent.
32	Saleswoman.....	603.65	7.14	Apparently satisfactory. Small apartment.
26	Laundry.....	595.60	7.18	Apparently satisfactory.

TABLE 4.—COST OF ROOM AND BOARD FOR WOMEN HOUSEKEEPING—Concluded.

Age.	Occupation.	Annual income.	Weekly expenditure for food and lodging.	Character of accommodation.
33	Telephone.....	\$803.69	\$7.52	Apparently satisfactory. Shared apartment with sister.
31	Office.....	765.00	7.55	Apparently satisfactory. One-room apartment with bath.
33	Saleswoman.....	782.00	7.60	Apparently satisfactory. Shared apartment with two sisters.
32	Factory.....	448.00	7.64	Unfurnished room nine months; apartment three months.
34	United States (Bureau of Engraving and Printing).	768.32	7.65	Apparently satisfactory. Shared apartment with two sisters.
35	.....do.....	546.11	7.88	Apparently satisfactory. Shared apartment. Thirty-five-minute ride to work.
29	Office.....	970.25	8.00	Apparently satisfactory. One-room apartment.
33	United States (operative)...	716.42	8.16	Apparently satisfactory. Shared apartment with friend.
55	Factory.....	494.00	8.22	Four unfurnished rooms over store. Had to provide own heat.
55	.....do.....	683.50	8.92	Apparently satisfactory. Shared apartment with niece.
52	United States (clerk).....	788.87	8.96	Apparently satisfactory. Shared apartment with daughter. Forty-five-minute ride to work.
54	Factory.....	600.00	9.12	Apparently satisfactory. Shared apartment with friend.
33	.....do.....	800.00	10.67	Apparently satisfactory. Two-room apartment alone.

(4) Working girls' homes.

Only 19 of the women scheduled were found to be living in working girls' homes. In the particular homes in which these women were living the rate for board and lodging was usually apportioned according to the wages received. Thus, the accommodation offered was usually considerably cheaper than could be obtained by these women in other places. That this form of living was so little availed of seems to have been due primarily to the fact that the total accommodation of such homes in Washington is very limited, as the homes in existence seemed to have been constantly full to capacity.

To determine this point with accuracy, a special survey of working girls' homes in Washington was made by the bureau in December, 1917, and a visit made to all of them with the exception of one which accommodated only 11 girls. In addition, a visit was made to the home recently established by the Telephone Co. for the accommodation of its operators brought in from other cities. This accommodates some 200 persons, but it is open only to telephone employees.

Excluding the Telephone Co.'s home, eight homes were found. The maximum number of persons they could accommodate was about 400.

Only two of these homes reported a majority of single rooms; the remaining 6 had nearly all double rooms and in several cases even three in a room. In two cases there were dormitories, each accommodating six women. All of the homes were heated by steam or

hot water except two, one of which had furnace hot-air heat, while the other had individual heating stoves. In all cases laundry privileges were allowed to some extent, but in only one place did the girls do all their own laundry, and in that instance they were charged a fee of 25 cents a month extra.

Sitting-rooms were provided in all these institutions and in most cases were very attractive, but in two instances were so cheerless that there could have been no pleasure in using them. Callers were allowed in all cases, with the requirement (except in two places) that they leave the building at a certain hour—10 p. m. in five cases, 11 p. m. in the remaining one. All girls were allowed to be out in the evening and in three cases were allowed to have a night key upon the payment of a 25-cent deposit; in all other cases they were let in by the matron after the doors were locked. In all cases, however, they were supposed to let the matron know when they expected to be out after certain hours, usually 10 p. m. The following table gives the name, location, restrictions, and rates for these eight homes:

TABLE 5.—WORKING GIRLS' HOMES IN WASHINGTON, IN DECEMBER, 1917.

Name.	Years in existence.	Number of girls accommodated.	Restrictions as to—			Rates.	
			Wage.	Age.	Religion.	Per week or month in 1917.	How determined.
Girls' Friendly ¹	5	24	{Low..	Under 25.	None..	\$3.50-\$7 week (3 meals).....	On salary.
Girls' Friendly	(²)	20	{None.	25-35.....	do....	\$32 month (3 meals).....	Flat rate.
Lodge.			None.	Under 30.	do....		
St. Catherine's.	25	75	do..	None.....	do....	\$2.50 week-\$30 month (3 meals).	On salary.
St. Gertrude's..	1	19	do..	None ³	do....	\$3.50-\$5.50 week (3 meals)...	Do.
Sunshine Home	7	22	do..	None ⁴	do....	\$2.50 week (3 meals) ⁵	Flat rate.
W. C. A.....	49	52	do..	None ⁶	do....	\$5-\$5.50 week (2 meals) ⁷	\$5 for double rooms, \$5.50 for single rooms.
Y. W. C. A.....	(²)	⁸ 100	do..	Under 35.	do....	\$10-\$20 month for room, \$18 month for meals.	On room.
Y. W. C. H.....	30	77	do..	do.....	do....	\$1.50 week-\$30 month.....	On salary.

¹ The Girls' Friendly is divided into two sections each accommodating 12 women.

² Less than one year.

³ Under 30 preferred.

⁴ Under 35 preferred.

⁵ \$2 week in 1916.

⁶ Under 40 preferred.

⁷ \$4 and \$4.50 in 1916.

⁸ 75 permanent; 25 transient. New building will accommodate 36 permanent and 8 transient.

EXPENDITURES FOR SICKNESS, AMUSEMENT, AND OTHER INCIDENTALS.

Food, clothing, and shelter demand the major portion of the income of every person of moderate wages or salary. But they do not exhaust even what may be termed the primary needs of human existence. Medical attention when sick and some amusement when well are certainly primary needs. The income of a working woman, as that of every other person, must be able to meet some expenditure

for these purposes, and also should be able to meet the costs of many other items, such as insurance, organization dues, car fare, gifts, etc.

The accompanying table (Table 6) indicates the amount and character of the expenditures made for all purposes other than food, clothing, and lodging, by the wage-earning women covered by this investigation. The data of the table are limited to those women, 137 in number, who were living away from home and who were entirely self-supporting. It is among such women, wholly dependent upon their own resources, that the matter of income apportionment is of particular interest and significance. A few of the more striking points of the table may be briefly commented upon.

Sickness.—Of the 137 women included, 93, or almost 70 per cent, had some expense for sickness during the year, the average for the whole group of 137 being \$14. The proportion of women having expenditures for sickness was fairly uniform in the different income groups. The average amount spent tended to increase with increasing income, but not as rapidly as with many other items. Thus, for those with incomes of less than \$300 per year, the average expenditure for sickness was \$11.74, while among those with incomes of \$800 to \$1,100 the average was \$18.31.

Amusements and vacation.—Expenditures for amusements averaged \$7.44 per year for the total group of 137 women, and expenditures for vacation averaged \$13.16. These amounts represent average weekly expenditures of only 14 cents and 25 cents, respectively, per individual. Both of these items tended to increase rapidly with increasing incomes, especially the item of vacation expenses. Of the 17 women with incomes of less than \$300 per year, only 4 reported any expenditures for vacation purposes, the average for this group being only \$1.56 per year. Among the women with incomes of \$800 to \$1,100, 12 out of the 13 scheduled reported vacation expenditures, the average being \$46.27.

Insurance.—Insurance was carried by almost 75 per cent of the 137 women, the average expenditure of the whole group being \$9.65.

Organizations.—Only 11 of the 137 women were members of labor organizations, and all of those were women with annual incomes of at least \$500.

School tuition.—Eleven women incurred expenses for school tuition during the year, all of these being women with incomes of at least \$500.

Car fare.—Car fare to and from work is unavoidable in the case of women living beyond a certain distance of their places of employment and must be spent at times by many other women. Eighty-three of the 137 women had such expenses, the average for the whole number being \$10.85.

Books and newspapers.—Expenditures for this item were very small. Of the 17 women with incomes under \$300 per year, only 6 reported any expenditures for this purpose, the average of all 17 being but 93 cents per year. Even for the women with incomes of from \$800 to \$1,100 per year, expenditures for reading matter averaged only \$4.71 per year, or less than 10 cents per week.

TABLE 6.—EXPENDITURES PER YEAR FOR SICKNESS, AMUSEMENT, INSURANCE, AND VARIOUS INCIDENTALS BY 137 SELF-SUPPORTING WOMEN LIVING AWAY FROM HOME.

	Expenditures of women with annual incomes of—							Total.
	Under \$300.	\$300 and under \$400.	\$400 and under \$500.	\$500 and under \$600.	\$600 and under \$700.	\$700 and under \$800.	\$800 and under \$1,100.	
Number of women in income group.....	17	16	28	31	14	18	13	137
Sickness:								
Number of women having expenditures for.....	12	10	22	20	11	11	7	93
Average expenditures for total group.....	\$11.74	\$11.31	\$13.52	\$16.03	\$12.04	\$14.18	\$18.31	\$14.00
Dentistry:								
Number of women having expenditures for.....	3	4	10	14	4	9	8	52
Average expenditures for total group.....	\$2.18	\$2.50	\$4.32	\$8.84	\$4.43	\$13.89	\$8.73	\$6.55
Occulist:								
Number of women having expenditures for.....	1	2	8	7	3	3	4	28
Average expenditures for total group.....	\$0.76	\$0.61	\$2.46	\$2.09	\$1.57	\$1.89	\$4.65	\$1.99
Amusements:								
Number of women having expenditures for.....	10	11	20	21	12	17	13	104
Average expenditures for total group.....	\$4.03	\$3.32	\$4.38	\$8.97	\$7.50	\$11.89	\$13.73	\$7.44
Vacation:								
Number of women having expenditures for.....	4	11	15	20	9	12	12	93
Average expenditures for total group.....	\$4.56	\$5.40	\$4.78	\$10.43	\$22.44	\$17.61	\$46.27	\$13.16
Fruit, candy, etc.:								
Number of women having expenditures for.....	5	7	14	20	7	14	11	78
Average expenditures for total group.....	\$2.06	\$2.02	\$5.07	\$6.03	\$4.29	\$11.82	\$8.62	\$5.70
Insurance:								
Number of women having expenditures for.....	13	13	22	24	10	14	4	100
Average expenditures for total group.....	\$6.90	\$8.19	\$9.35	\$8.75	\$12.51	\$11.39	\$12.35	\$9.65
Charity:								
Number of women having expenditures for.....	2	4	8	13	7	13	10	57
Average expenditures for total group.....	\$0.24	\$1.00	\$0.63	\$1.45	\$2.88	\$4.15	\$3.69	\$1.79
Religion:								
Number of women having expenditures for.....	7	10	21	23	12	15	10	98
Average expenditures for total group.....	\$0.97	\$2.53	\$2.60	\$4.34	\$9.11	\$7.82	\$6.81	\$4.54
Organizations—labor:								
Number of women having expenditures for.....				5	1	3	2	11
Average expenditures for total group.....				\$0.77	\$0.03	\$0.80	\$0.15	\$0.30
Organizations—other:								
Number of women having expenditures for.....	1		2	6	3	7	3	22
Average expenditures for total group.....	\$0.39		\$0.13	\$0.43	\$1.26	\$0.92	\$0.69	\$0.49
School tuition:								
Number of women having expenditures for.....				3	2	2	4	11
Average expenditures for total group.....				\$2.77	\$1.79	\$0.36	\$8.92	\$1.70
Car fare—to and from work:								
Number of women having expenditures for.....	9	8	10	23	10	14	9	83
Average expenditures for total group.....	\$2.06	\$7.17	\$6.93	\$15.63	\$12.61	\$17.70	\$12.50	\$10.85
Car fare—other:								
Number of women having expenditures for.....	10	14	26	25	12	17	12	116
Average expenditures for total group.....	\$2.61	\$5.56	\$6.22	\$7.97	\$8.59	\$12.68	\$13.10	\$7.84
Furniture:								
Number of women having expenditures for.....	2	1	3	6	2	6	6	26
Average expenditures for total group.....	\$1.59	\$1.13	\$3.96	\$7.48	\$3.36	\$10.33	\$23.69	\$6.78

TABLE 6.—EXPENDITURES PER YEAR FOR SICKNESS, AMUSEMENT, INSURANCE, AND VARIOUS INCIDENTALS BY 137 SELF-SUPPORTING WOMEN LIVING AWAY FROM HOME—Concluded.

	Expenditures of women with annual incomes of—							Total.
	Under \$300.	\$300 and under \$400.	\$400 and under \$500.	\$500 and under \$600.	\$600 and under \$700.	\$700 and under \$800.	\$800 and under \$1,100.	
Books and newspapers:								
Number of women having expenditures for.....	6	2	18	18	11	14	11	80
Average expenditures for total group.....	\$0.93	\$0.28	\$2.92	\$2.58	\$4.20	\$4.58	\$4.71	\$2.81
Gifts:								
Number of women having expenditures for.....	11	13	23	30	12	18	13	120
Average expenditures for total group.....	\$3.21	\$7.13	\$11.34	\$14.05	\$13.11	\$26.83	\$35.50	\$14.96
For family and dependents:								
Number of women having expenditures for.....	3	4	6	13	4	6	4	40
Average expenditures for total group.....	\$6.18	\$12.67	\$8.42	\$22.77	\$5.36	\$34.87	\$14.31	\$15.61
Other incidentals:								
Number of women having expenditures for.....	17	16	28	31	14	18	13	137
Average expenditures for total group.....	\$3.79	\$10.88	\$8.45	\$12.23	\$14.79	\$18.32	\$15.99	\$11.67
Average expenditures—All incidentals....	\$51.18	\$81.68	\$95.49	\$153.61	\$141.86	\$222.00	\$252.73	\$137.81

COST OF LIVING IN GERMANY, APRIL, 1916.

INTRODUCTION.

The enormous increase in the cost of living in Germany since July, 1914, has been one of the most discussed problems of the war. Vague statements as to the high cost of living have appeared in the daily press from time to time, but until the war committee on consumers' interests made two extensive investigations in April and July, 1916, no accurate data were available. When the results of these two investigations had been compiled the committee put them at the disposal of the Imperial Statistical Office (Division for Labor Statistics) which published a brief summary in the Reichs-Arbeitsblatt of February 23 and March 23, 1917.

PLAN OF THE INVESTIGATIONS.

During the month of April, 1916, the war committee on consumers' interests made for the first time an extensive investigation as to the cost of living of families residing in cities. About 4,000 schedules were distributed in the individual cities by local and district committees to families who had declared their willingness to cooperate in the investigation. The schedules consisted of two sheets marked A and B. The daily expenditures (in marks) and the weight (in grams) of the food purchased during the month of April were to be entered each day on sheet A. The daily expenditures and quantities purchased were to be added each week and the totals entered on sheet B and there added at the end of the month. In addition to the amounts

spent for food all expenditures for fuel, light, rent, taxes, clothing, laundry, household utensils, books, newspapers, transportation, physician, drugs, barber, insurance, membership fees, amusements, gifts, tips, etc., were also to be entered. Sheet B also contained questions as to the place of residence, occupation of the head of the family, number of persons composing the family (number of adults, children 1 to 10 years, and over 10 to 16 years old, and infants), and number of persons in the family having a regular gainful occupation and their earnings during April. The schedules were accompanied by detailed instructions as to the manner in which they were to be filled in, particular emphasis being laid on the urgent necessity of correctness in entering expenditures for food and the quantities of food consumed. The instructions also pointed out that only the proportionate amount properly chargeable to April for such items as rent, taxes, tuition fees, etc., should be entered on the questionnaire, and that expenditures for clothing should be computed similarly.

At the beginning of May the schedules numbering about 900 were collected by the committees and sent to headquarters where they were first thoroughly examined in order to determine the correctness or probability of the data relating to expenditures and quantities consumed. Incomplete or improbable data were supplemented whenever this was practicable. Otherwise they were discarded. Of the 900 schedules, 858 were found to be usable. Sheets A and B were examined to see whether the weekly entries corresponded to the totals of the daily expenditures. Special attention was paid to expenditures other than for food. Here it was found that in spite of the admonitions in the instructions the data for rent, taxes, and other expenditures in many instances covered quarterly or even half-yearly periods instead of only the month of April, as required. This was, of course, corrected. On the whole, however, the compilation was effected with the thought of making as few changes as possible in the original data, and of resorting to corrections only in case of evident errors which appeared from a comparison of sheets A and B.

The next task was the computation of the expenditures and of the quantities consumed per unit of consumption, arranged by income groups. After this was done, families of four persons were selected within the two largest income groups, that is, those with monthly incomes of from 100 to 200 and from 200 to 300 marks, and their monthly average expenditures and consumption computed by occupations. It should be mentioned that whenever the word income or income group is used here income from earnings only and not from other sources is meant.

In the computation of the expenditures per unit of consumption, children under 11 years of age were counted as half a unit within the

individual families. This method of computation is of course essentially less precise than the so-called computation by "quets," proposed by Engel and of late generally adopted in cost-of-living investigations, which considers the composition of families by age and sex, and the relative consuming powers of the different members. The quiet method could not be adopted in the present investigation because the schedules used distinguished only between children 1 to 10 and 11 to 16 years of age.

As has been mentioned, the number of usable schedules was 858. The 858 households to which these schedules related were composed of 4,079 persons, of which 2,261 were adults (over 16 years of age), 758 were children 11 to 16 years of age, 986 were children 1 to 10 years of age, and 74 were infants. The total number of units of consumption in these families was 3,733,¹ children under 11 years of age having been counted as half a unit.

The 858 households were distributed among the individual cities as follows: Four hundred and seventy-two families lived in 27 large cities each with a population of 100,000 or more; 279 families lived in 20 medium-sized cities each with a population of over 20,000 and less than 100,000; 107 families lived in 8 small cities each with a population of over 5,000 and less than 20,000. Thus more than half of the families included in the investigation lived in large cities.

According to their monthly income (earnings from work) the families were distributed in the following seven groups:

NUMBER OF FAMILIES AND UNITS OF CONSUMPTION, BY INCOME GROUPS.

Income group.	Number of families.	Units of consumption.
Less than 100 marks (\$23.80).....	25	65
100 marks (\$23.80) to 200 marks (\$47.60).....	319	1,249
Over 200 to 300 marks (\$47.60 to \$71.40).....	271	1,251
Over 300 to 400 marks (\$71.40 to \$95.20).....	139	685
Over 400 to 500 marks (\$95.20 to \$119).....	37	167
Over 500 marks (\$119).....	32	184
Income not stated.....	35	132
Total.....	858	3,733

¹ This is the total given in the report; how it was determined is not clear, since 2,261 units (adults) and 758 units (children 11 to 16 years of age) and 530 units (one-half of the total of children 1 to 10 years, and infants) make a total of 3,549 units.

The distribution of the 858 families according to the occupation of the head of the household was as follows:

NUMBER OF FAMILIES, BY OCCUPATION OF HEADS OF HOUSEHOLDS.

Occupation.	Number of families.
Higher Government employees.....	48
Medium-salaried Government employees.....	114
Low-salaried Government employees.....	63
Private salaried employees.....	166
Workmen.....	183
Free professions.....	22
Wives of soldiers.....	31
Not reported.....	231
Total.....	858

The majority of the families included in the investigation were middle-class families.

RESULTS OF THE INVESTIGATION.

The results of the investigation described above are given here in a series of general tables of which the following table shows the average expenditures per unit of consumption, by classified income, in actual and relative figures:

TABLE 1.—AVERAGE EXPENDITURES OF GERMAN FAMILIES DURING APRIL, 1916, FOR VARIOUS PURPOSES PER UNIT OF CONSUMPTION, BY CLASSIFIED INCOMES.

Object of expenditure.	Expenditures per family having classified amount of income.							Average expenditure all families (858 families; 3,733 units; 4.2 units per family).
	Under \$23.80 (25 families; 65 units; 2.6 units per family).	\$23.80 to \$47.60 (319 families; 1,249 units; 3.9 units per family).	Over \$47.60 to \$71.40 (271 families; 1,251 units; 4.6 units per family).	Over \$71.40 to \$95.20 (139 families; 685 units; 4.9 units per family).	Over \$95.20 to \$119 (37 families; 167 units; 4.5 units per family).	Over \$119 (32 families; 184 units; 5.7 units per family).	Income not stated (35 families; 132 units; 3.7 units per family).	
Food, beverages, etc.....	\$8.34	\$8.22	\$9.00	\$9.92	\$11.73	\$11.62	\$12.29	\$9.29
Rent.....	1.54	1.43	1.72	2.05	2.90	4.19	3.42	1.90
Clothing and laundry.....	1.31	1.38	1.60	1.98	2.60	2.60	1.93	1.70
Fuel and light.....	.55	.54	.58	.68	.87	1.07	1.17	.64
Miscellaneous.....	3.35	2.36	3.42	5.25	6.96	8.36	7.73	4.29
Total.....	15.09	13.93	16.32	19.88	25.06	27.84	26.54	17.82

PER CENT.								
Food, beverages, etc.....	55.22	59.00	55.13	49.87	46.81	41.74	46.28	52.14
Rent.....	10.20	10.23	10.57	10.33	11.59	15.03	12.89	10.67
Clothing and laundry.....	8.70	9.93	9.78	9.98	10.37	9.35	7.28	9.53
Fuel and light.....	3.64	3.83	3.54	3.42	3.47	3.83	4.41	3.61
Miscellaneous.....	22.22	16.96	20.98	26.40	27.76	30.04	29.14	24.05
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

A study of the data shown in the preceding table reveals the striking fact that 52.14 per cent, or over one-half of the average total expenditures of the 858 families included in the investigation went for food. These figures are expressive of the food shortage during the war and of the consequent increased cost of the principal foodstuffs. According to the investigations of the Imperial Statistical Office of 1907¹ which related to families with a considerably smaller average income than that of the families considered in the present investigation, the average expenditures for food amounted to only 45.57 per cent of the total expenditures. In the low income classes the percentage of expenditures for food, as was to be expected, was much higher than the average percentage. In the income class of 100 to 200 marks (\$23.80 to \$47.60) it was 59 per cent and in the income class of 200 to 300 marks (\$47.60 to \$71.40) it was over 55 per cent, but even in the higher income classes the average was not less than 41.74 per cent while, according to the investigation of 1907, families in the higher income classes spent for food an average of only 36 per cent of their total expenditures. Not counting the miscellaneous group, expenditures for rent come next to food in importance. They amounted to between 10 and 16 per cent (average 10.67 per cent). The next largest item was clothing and laundry for which the average expenditure amounted to 9.53 per cent of the total expenditure.

In view of the scarcity and high cost of food in Germany during the war, the following table, which shows the average expenditure and percentage of expenditure for individual foodstuffs per unit of consumption, by classified income, is of special interest.

TABLE 2.—AVERAGE EXPENDITURES OF GERMAN FAMILIES DURING APRIL, 1916, FOR FOOD PER UNIT OF CONSUMPTION, CLASSIFIED BY MONTHLY INCOMES.

AMOUNT.

Item.	Expenditure per family having classified amount of income.							Average expenditure, all families (858 families; 4.2 units per family).
	Under \$23.80 (25 families; 2.6 units per family).	\$23.80 to \$47.60 (319 families; 3.9 units per family).	Over \$47.60 to \$71.40 (271 families; 4.6 units per family).	Over \$71.40 to \$95.20 (139 families; 4.9 units per family).	Over \$95.20 to \$119 (37 families; 4.5 units per family).	Over \$119 (32 families; 5.7 units per family).	Income not stated (35 families; 7.7 units per family).	
1. Food consumed in the household:								
Bread, rolls, etc.....	\$0.80	\$0.83	\$0.82	\$0.80	\$0.82	\$0.78	\$0.83	\$0.82
Other bakery goods, cakes, etc.....	.23	.17	.20	.19	.33	.28	.23	.20
Flour, grits, farinaceous foods, etc.....	.24	.32	.34	.37	.44	.47	.44	.35
Potatoes.....	.45	.51	.49	.50	.43	.39	.43	.49
Butter, lard, margarine, oil.....	.81	.96	.97	1.08	1.03	1.02	1.07	.99
Meat, sausage, ham, etc....	.80	1.18	1.49	1.83	2.35	2.53	2.29	1.56
Conserved meat.....	.51	.25	.33	.29	.20	.17	.40	.28
Fish, smoked and fresh; crabs, etc.....	.24	.25	.24	.29	.32	.42	.36	.27

¹ See Bulletin No. 88 of the United States Bureau of Labor. Cost of living of families of moderate income in Germany in 1907-8.

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TABLE 2.—AVERAGE EXPENDITURES OF GERMAN FAMILIES DURING APRIL, 1916, FOR FOOD PER UNIT OF CONSUMPTION, CLASSIFIED BY MONTHLY INCOMES—Continued.

AMOUNT—Concluded.

Item.	Expenditure per family having classified amount of income.							Average expenditure, all families (858 families; 4.2 units per family).
	Under \$23.80 (25 families; 2.6 units per family).	\$23.80 to \$47.60 (319 families; 3.9 units per family).	Over \$47.60 to \$71.40 (271 families; 4.6 units per family).	Over \$71.40 to \$95.20 (139 families; 4.9 units per family).	Over \$95.20 to \$119 (37 families; 4.5 units per family).	Over \$119 (32 families; 5.7 units per family).	Income not stated (35 families; 3.7 units per family).	
1. Food consumed in the household—Concluded.								
Fish canned.....	\$0.11	\$0.09	\$0.10	\$0.12	\$0.17	\$0.11	\$0.11	\$0.11
Eggs.....	.30	.49	.55	.63	.75	.63	.70	.56
Milk, fresh.....	.61	.53	.51	.50	.57	.60	.74	.51
Milk, condensed.....	.13	.12	.13	.12	.21	.15	.09	.13
Cheese, cottage cheese, etc.....	.15	.21	.23	.26	.29	.34	.37	.24
Vegetables (fresh and dried), fruit.....	.19	.23	.28	.39	.52	.59	.58	.32
Canned fruits and vegetables.....	.25	.12	.16	.19	.26	.30	.29	.17
Jam, preserved fruits, etc.....	.24	.21	.23	.26	.34	.33	.27	.24
Sugar.....	.18	.18	.18	.18	.20	.20	.20	.18
Cocoa, chocolate, sweets.....	.16	.13	.13	.19	.24	.26	.26	.17
Spices, salt, vinegar, lemons, etc.....	.10	.12	.13	.15	.19	.19	.12	.14
Coffee, pure and in mixtures.....	.21	.24	.24	.28	.36	.25	.22	.25
Coffee substitutes.....	.12	.11	.10	.09	.09	.06	.10	.09
Nonalcoholic drinks, tea, etc.....	.12	.06	.11	.11	.16	.14	.18	.10
Food substitutes.....	.08	.08	.08	.07	.10	.08	.16	.08
Other foodstuffs.....	.16	.15	.17	.16	.12	.19	.15	.16
Total.....	7.18	7.54	8.21	9.05	10.49	10.48	10.59	8.45
2. Alcohol, tobacco, cigars.....	.23	.31	.34	.41	.62	.44	.60	.26
3. Food and beverages consumed outside the household.....	.92	.38	.45	.46	.02	.70	1.09	.48
Grand total.....	8.33	8.23	9.00	9.92	11.73	11.62	12.28	9.29

PER CENT.

1. Food consumed in the household:								
Bread, rolls, etc.....	11.21	11.01	10.00	8.86	7.93	7.44	7.80	9.69
Other bakery goods, cakes, etc.....	3.22	2.31	2.43	2.10	3.13	2.70	2.18	2.39
Flour, grits, farinaceous foods, etc.....	3.28	4.11	4.12	4.13	4.18	4.47	4.20	4.17
Potatoes.....	6.30	6.77	6.03	5.54	4.11	3.70	4.07	5.09
Butter, lard, margarine, oil.....	11.24	12.71	11.83	11.89	9.80	9.70	10.07	11.72
Meat, sausage, ham.....	11.07	15.72	18.12	20.25	22.40	24.12	21.63	18.46
Conserved meat.....	7.13	3.29	4.03	3.16	1.91	1.66	3.75	3.32
Fish, fresh and smoked; crabs, etc.....	3.35	3.26	2.90	3.26	3.06	4.04	3.37	3.21
Fish, canned.....	1.59	1.17	1.28	1.29	1.63	1.07	1.03	1.39
Eggs.....	4.24	6.55	6.70	7.02	7.19	6.03	6.59	6.65
Milk, fresh.....	8.49	6.99	6.17	5.57	5.45	5.74	6.97	6.28
Milk, condensed.....	1.82	1.52	1.59	1.29	2.04	1.48	.85	1.53
Cheese, cottage cheese, etc.....	2.12	2.78	2.81	2.84	2.75	3.22	3.53	2.84
Vegetables (fresh and dried), fruit.....	2.09	3.10	3.26	4.34	4.97	5.61	5.44	3.8
Canned fruits and vegetables.....	3.55	1.58	1.91	2.13	2.43	2.82	2.74	2.65
Jam, preserved fruits, etc.....	3.38	2.85	2.78	2.89	3.27	3.13	2.59	2.87
Sugar.....	2.49	2.44	2.17	2.00	1.88	1.84	1.93	2.17
Cocoa, chocolate, sweets.....	2.22	1.70	1.65	2.05	2.27	2.52	2.45	1.97
Spices, salt, vinegar, lemons, etc.....	1.39	1.60	1.65	1.63	1.79	1.82	1.15	1.61
Coffee, pure and in mixtures.....	2.85	3.23	2.93	3.05	3.43	2.36	2.07	2.99

TABLE 2.—AVERAGE EXPENDITURES OF GERMAN FAMILIES DURING APRIL, 1916, FOR FOOD PER UNIT OF CONSUMPTION, CLASSIFIED BY MONTHLY INCOMES—Concluded.

PER CENT—Concluded.

Item.	Expenditure per family having classified amount of income.							Average expenditure, all families (\$53 families; 4.2 units per family).
	Under \$23.80 (25 families; 2.6 units per family).	\$23.80 to \$47.60 (319 families; 3.9 units per family).	Over \$47.60 to \$71.40 (271 families; 4.6 units per family).	Over \$71.40 to \$95.20 (139 families; 4.9 units per family).	Over \$95.20 to \$119 (37 families; 4.5 units per family).	Over \$119 (32 families; 5.7 units per family).	Income not stated (85 families; 3.7 units per family).	
1. Food consumed in the household—Concluded.								
Coffee substitutes.....	1.66	1.39	1.15	0.97	0.86	0.61	0.92	1.13
Nonalcoholic drinks, tea, etc.....	1.69	.82	1.33	1.18	1.54	1.32	1.73	1.18
Food substitutes.....	.90	1.11	.96	.74	.95	.77	1.52	.95
Other foodstuffs.....	2.02	1.99	2.09	1.81	1.12	1.82	1.42	1.88
Total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Per cent of grand total.								
1. Food consumed in the household.....	86.12	91.55	91.22	91.26	89.39	90.19	86.19	90.94
2. Alcohol, tobacco, cigars.....	2.83	3.76	3.78	4.08	5.34	3.79	4.94	3.92
3. Food and beverages consumed outside the household.....	11.05	4.69	5.00	4.66	5.27	6.02	8.87	5.14
Grand total.....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Of the expenditures for food consumed in the household those for meat and meat products come in first place. They form 18.5 per cent of the total so expended, and 21.8 per cent if conserved meat is included. The relatively large expenditures for conserved meat indicate the shortage of fresh meat which had already made itself felt in April, 1916, and thereafter became still more acute. The large expenditures for fish—3.2 per cent, and inclusive of canned fish, 4.5 per cent—which in peace times formed only 1 or at the most 2 per cent of the total expenditures for food, and the large expenditures for potatoes—nearly 6 per cent against 3 to 4 per cent in peace times—and jam which was used as a substitute for the very scarce butter, and bakery goods and cakes which had to supplement the scanty bread rations, and the large consumption of substitutes and preserved foods, are also significant of the changed standard of nutrition of the urban population brought about by the high cost of living and the shortage of foodstuffs during the war.

If the data shown in the preceding table are considered by income groups, it is found that the expenditures for conserved meat in contrast to those for fresh meat decrease with increasing income, indicating that even in April, 1916, the poorer classes of the population had begun to consume extensively conserved meat in preference to

the scarce fresh meat which could only be obtained at prohibitive prices. Among the financially better situated classes, on the other hand, the consumption of preserved vegetables increases with increasing income.

The expenditures for preserved foods and substitutes and for "other foodstuffs" participated in the total expenditures of the individual income groups for food consumed in the household with the following percentages:

PERCENTAGE OF EXPENDITURES FOR PRESERVED FOODS, FOOD SUBSTITUTES, AND "OTHER FOODSTUFFS," BY INCOME GROUPS.

Income group.	Per cent.
100 to 200 marks (\$23.80 to \$47.60).....	12.05
Over 200 to 300 marks (\$47.60 to \$71.40).....	13.05
Over 300 to 400 marks (\$71.40 to \$95.20).....	11.39
Over 400 to 500 marks (\$95.20 to \$119).....	10.94
Total average.....	12.20

The expenditures for tobacco and alcoholic beverages formed on an average about 4 per cent, and those for meals in restaurants, cafés, etc., about 5 per cent of the total expenditures for food and beverages.

The average quantities consumed per unit of consumption, classified by income, are shown in the following table. These data are of special value because in former cost of living investigations data as to quantities consumed were very rare and as a rule not very reliable. In peace times such data are harder to obtain from the individual housekeepers than during the present war when most of the important foodstuffs have been rationed by weight and more attention is paid to the quantities of food purchased because of the general scarcity. The report on the investigation states that the data as to quantities shown in the schedules have been examined very carefully before being compiled and that consequently it can be assumed that they represent as nearly as possible the actual quantities consumed. Food consumed away from home and not taken therefrom has not been included.

TABLE 3.—AVERAGE QUANTITIES OF FOODSTUFFS CONSUMED BY GERMAN FAMILIES DURING APRIL, 1916, PER UNIT OF CONSUMPTION, CLASSIFIED BY MONTHLY INCOMES.

[Not all families having furnished data as to quantities of all foodstuffs consumed, the number of units of consumption to which the data shown in the table relate are placed within parentheses.]

Article.	Families having classified amount of income.			
	Under \$23.80 (25 families; 65 units).	\$23.80 to \$47.60 (319 families; 1,249 units).	\$47.60 to \$71.40 (271 families; 1,251 units).	\$71.40 to \$95.20 (139 families; 685 units).
	Pounds.	Pounds.	Pounds.	Pounds.
Bread, rolls, etc.....	21.5	18.9	18.4	17.6
Other bakery goods, cakes, etc.....	(24) 1.7	(814) .9	(878) 1.1	(548) 1.0
Flour, grits, farinaceous foods, etc.....	.2	3.2	3.1	3.3
Potatoes.....	35.0	40.1	36.2	37.3
Butter, lard, margarine, oil.....	1.7	1.9	1.9	2.0
Meat, fresh; sausage, ham, etc.....	1.7	2.7	3.2	4.0
Meat, conserved.....	(6) .4	(381) .7	(441) 1.0	(261) .0
Fish, smoked and fresh; crabs, etc.....	(33) 1.1	(881) 1.4	(990) 1.5	(544) 1.9
Fish, canned.....	(4) .4	(128) .4	(212) .3	(146) .4
Eggs.....	¹ 8	¹ 12	¹ 11	¹ 13
Milk.....	² 10.6	² 8.5	² 7.4	² 7.5
Milk, condensed.....		(261) .5	(295) .8	(199) .4
Cheese, cottage cheese.....	(46) .6	(1,095) .8	(1,138) .8	(653) .4
Vegetables, fresh and dried; fruit.....	(44) 3.5	(1,112) 3.3	(1,169) 3.2	(562) 4.9
Vegetables and fruit, canned.....	(16) 4.4	(663) 1.3	(651) 1.6	(494) 1.1
Jam, preserved fruit, artificial honey, etc.....	(55) 2.3	(1,149) 1.9	(1,135) 1.8	(627) 2.9
Sugar.....	2.5	2.7	2.5	2.0
Cocoa, chocolate, sweets.....	(25) .4	(749) .4	(811) .2	(544) .5
Coffee, pure and in mixtures.....	(44) .4	(972) .5	(1,077) .4	(620) .6
Coffee substitutes.....	(55) 1.3	(1,162) .8	(1,158) .8	(643) .73

Article.	Families having classified amount of income.			
	\$95.20 to \$119 (37 families; 167 units).	Over \$119 (32 families; 184 units).	Income not stated (35 families; 132 units).	Total (858 families; 3,733 units).
	Pounds.	Pounds.	Pounds.	Pounds.
Bread, rolls, etc.....	17.2	17.4	17.0	18.3
Other bakery goods, cakes, etc.....	(122) 1.8	(171) 1.6	(118) .5	(2,675) 1.0
Flour, grits, farinaceous foods, etc.....	3.1	3.4	3.9	3.2
Potatoes.....	31.6	33.2	28.5	37.0
Butter, lard, margarine, oil.....	1.8	2.0	2.0	1.9
Meat, fresh; sausage, ham, etc.....	4.5	5.0	5.2	3.4
Meat, conserved.....	(80) .7	(94) .5	(31) 1.1	(1,294) .8
Fish, smoked and fresh; crabs, etc.....	(145) 1.4	(168) 2.1	(119) 1.9	(2,880) 1.5
Fish, canned.....	(47) .3	(71) .3	(19) .7	(627) .4
Eggs.....	¹ 16	¹ 13	¹ 12	¹ 12
Milk.....	² 9.5	² 14.8	² 11.6	² 8.5
Milk, condensed.....	(94) .7	(71) .6	(36) .05	(963) .6
Cheese, cottage cheese.....	.7	(178) .8	(115) .7	(3,392) .8
Vegetables, fresh and dried; fruit.....	4.9	5.8	(125) 8.0	(3,363) 3.8
Vegetables and fruit, canned.....	(124) 2.4	(169) 3.0	(81) 3.3	(2,198) 1.9
Jam, preserved fruit, artificial honey, etc.....	(155) 2.3	(178) 2.5	(121) 2.0	(3,420) 2.0
Sugar.....	2.6	2.9	3.0	2.6
Cocoa, chocolate, sweets.....	(147) .3	(164) .4	(104) .4	(2,544) .3
Coffee, pure and in mixtures.....	(153) .7	(179) .4	(124) .4	(3,169) .5
Coffee substitutes.....	(131) .6	(172) .6	(102) .9	(3,423) .8

¹ Number.² Quarts.

The preceding table gives a true picture of the diet of the German urban population during the war. As to quantity of the individual foodstuffs consumed in April, 1916, potatoes come in first place, the 858 families included in the investigation having consumed 16.79 kilograms (37 pounds) of potatoes per unit of consumption, a consumption twice as large as that of bread and rolls combined which is due partly to the reduced bread ration. The consumption of vegetables and fruit, fresh and preserved, with 2.57 kilograms (5.7 pounds), comes in third place, and that of fresh and conserved meat with 1.90

kilograms (4.2 pounds) in fourth place. The consumption of fish was nearly half that of meat, showing a considerable increase as compared with peace-time consumption. An analysis of the data for the individual income groups corroborates the well-known fact of decreased consumption of potatoes and bread and increased consumption of meat in the groups with higher incomes. It also shows that the consumption of vegetables, fresh and preserved, jam, sugar, cocoa, and sweets, increases with increased income. With the exception of the lowest income group the consumption of cheese was nearly the same in all income groups.

The consumption of preserved foods in the various income groups was the following:

CONSUMPTION OF PRESERVED FOODS, BY INCOME GROUPS.

Income group.	Pounds.
100 to 200 marks (\$23.80 to \$47.60).....	2.92
Over 200 to 300 marks (\$47.60 to \$71.40).....	3.77
Over 300 to 400 marks (\$71.40 to \$95.20).....	3.57
Over 400 to 500 marks (\$95.20 to \$119).....	4.01
Average.....	3.69

The expenditures for all items and the consumption of food of families of 4 persons of the two largest income groups, those relating to incomes of 100 to 200 marks (\$23.80 to \$47.60) and of over 200 to 300 marks (\$47.60 to \$71.40) arranged by occupations of the heads of the families are shown in the four tables which follow:

TABLE 4.—AVERAGE EXPENDITURES FOR APRIL, 1916, OF SELECTED GERMAN FAMILIES OF FOUR PERSONS WITH A MONTHLY FAMILY INCOME OF 100 TO 200 MARKS (\$23.80 TO \$47.60), BY OCCUPATION OF HEADS OF FAMILIES.

[The figures in this table are taken from the original report. In that report the average total expenditure per family of all of the 57 families included in the table is given as 222.05 marks (\$52.85), which does not correspond to the average of the totals shown for the individual occupational groups. On the basis of the latter the average expenditures per family of all the 57 families would be only 217.39 marks (\$51.74).]

Object of expenditure.	Low-salaried Government employees (19 families).	Private salaried employees (6 families).	Workmen (16 families).	Occupation not stated (16 families).	Average (57 families).	
					Amount.	Per cent.
Food and beverages consumed in and outside of the household.....	\$31.21	\$29.51	\$33.30	\$30.09	\$31.51	59.60
Fuel, wood, coal, light.....	2.08	1.83	1.96	1.83	1.95	3.69
Rent.....	6.33	5.39	4.73	5.03	5.41	10.25
Taxes.....	.86	.81	1.02	1.07	.95	1.80
Clothing, shoes, repairs.....	4.82	4.00	3.21	3.94	4.03	7.63
Miscellaneous expenditures:						
Laundry, soap, soda.....	1.18	1.33	1.18	1.24	1.21	2.29
Household utensils, furniture, etc.....	.35	.32	.35	.31	.35	.65
Books, newspapers, etc.....	.68	.51	.67	.80	.69	1.32
Car fare.....	.64	.55	.64	.69	.64	1.22
Physician, drugs.....	1.34	.55	.89	.53	.90	1.71
Barber, baths.....	.36	.33	.23	.23	.29	.54
Insurance.....	.93	1.21	1.24	1.21	1.12	2.12
Dues for societies.....	.43	.76	.75	.79	.65	1.23
Amusements, sports.....	.29	.12	.40	.18	.26	.50
Gifts.....	.89	.79	.75	.84	.84	1.59
Wages, tips.....	.05	1.61	.18	.....	.86	1.63
Miscellaneous.....	1.67	1.56	.70	1.04	1.17	2.22
Total.....	53.09	51.19	52.19	49.88	52.85	100.00

The monthly average of expenditures for April, 1916, of a family of four persons with a monthly family income of from 100 to 200 marks (\$23.80 to \$47.60), amounted to 222.05 marks (\$52.85) according to the preceding table. This means that on an average all families coming within the above classification lived beyond the income derived from their earnings and that the deficit of their budget had to be covered from other sources of income or from their savings, while families having neither other sources of income nor savings were forced to contract debts in order to obtain the necessities of life. The report states that in view of the greatly increased cost of living it seems very probable that in the lowest income group the living expenses exceeded the income from earnings.

The expenditures for food, beverages, etc., of a family of four persons of the income group considered in the table were 132.36 marks (\$31.51), those for rent 22.76 marks (\$5.41), for heat and light 8.20 marks (\$1.95), for clothing, shoes, and repairs 16.95 marks (\$4.03), for laundry, soap, and soda 5.09 marks (\$1.21), and for taxes 4 marks (95 cents). The expenditures for books, newspapers, etc., amounted to 2.92 marks (69 cents) and those for amusements and sports to only 1.10 marks (26 cents). The report observes that the figures for these two items furnish gratifying proof that the families in this income group preferred reading to amusements. The expenditures for insurance, medical treatment, and drugs, amounting to 4.71 and 3.80 marks (\$1.12 and 90 cents), respectively, were relatively large. Membership in trade and professional unions required a monthly outlay of 2.74 marks (65 cents). That the expenditures for gifts reached the relatively large amount of 3.52 marks (84 cents) is to be explained by the fact that nearly all families have relatives in the army or navy to which gifts were frequently sent by parcel post.

An analysis of the expenditures of these families by occupational groups shows that families of low-salaried Government employees spend less for food than workmen's families but more for rent, clothing, shoes, books, newspapers, medical treatment and drugs, baths, shaving, and hair cutting. The table also shows that workmen's families make the largest expenditures for amusements and sports and salaried employees' families the smallest.

The expenditures for and the consumption of food of the families considered in the preceding table are itemized in the following table:

TABLE 5.—EXPENDITURES FOR AND CONSUMPTION OF FOOD DURING APRIL, 1916, OF SELECTED GERMAN FAMILIES OF FOUR PERSONS WITH A MONTHLY FAMILY INCOME OF 100 TO 200 MARKS (\$23.80 TO \$47.60), BY OCCUPATIONS OF HEADS OF FAMILIES.

[The totals in this table are not in all cases equal to the sum of the items, but they and the items are the exact equivalents of the figures in the original report. No explanation of the discrepancy is given.]

Item.	Low-salaried Government employees (19 families).		Private-salaried employees (6 families).		Workmen (16 families).		Occupation not stated (16 families).		Average (57 families).		
	Expenditure.	Consumption.	Expenditure.	Consumption.	Expenditure.	Consumption.	Expenditure.	Consumption.	Expenditure.		Consumption.
									Amount.	Per cent.	
Food consumed in the household:		Lbs.		Lbs.		Lbs.		Lbs.			Lbs.
Bread, rolls, etc.	\$3.03	67.2	\$2.88	65.3	\$3.40	74.8	\$3.42	79.9	\$3.23	10.95	72.4
Other bakery goods, cakes, etc.	.43	2.4	.87	7.7	.58	4.3	.62	4.0	.60	2.02	4.3
Flour, grits, farinaceous food, etc.	1.25	12.8	1.01	10.4	1.36	12.7	1.31	12.3	1.28	4.33	10.5
Potatoes.	1.48	128.7	1.84	155.2	2.51	185.1	2.06	210.9	1.97	6.68	155.6
Butter, lard, margarine, oil.	3.76	7.2	3.92	7.2	4.07	8.2	4.31	8.2	4.02	13.61	7.7
Meat, sausage, ham, etc.	4.58	10.0	5.82	12.4	5.02	10.3	4.53	11.5	4.83	16.37	10.8
Conserved meat.	1.03	2.8	1.18	2.5	.64	2.6	.48	1.3	.82	2.77	2.0
Fish, smoked and fresh; crabs, etc.	.82	4.2	.85	4.7	1.02	4.8	.99	6.6	.93	3.16	5.1
Fish, canned.					.36		.20		.34	1.14	
Eggs.	2.00	1.46	1.33	1.27	2.25	1.46	1.85	1.43	1.95	6.62	1.43
Milk, fresh.	2.32	41.1	2.00	30.4	1.65	28.5	1.66	26.4	1.92	6.50	33.3
Milk, condensed.	.44	2.6			.81		.52		.60	2.02	2.6
Cheese, cottage cheese, etc.	.78	3.5	.44	2.5	.72	2.5	.65	2.1	.69	2.33	2.7
Vegetables (fresh and dried), fruit.	.92	11.3	1.34	11.5	.96	16.6	1.07	12.3	1.01	3.42	12.8
Canned fruits and vegetables.	.37	2.6	.36	3.7	.66	5.6	.33	3.6	.43	1.45	3.7
Jam, preserved fruits, etc.	.75	6.4	.63	4.2	.81	7.5	.81	6.8	.77	2.62	6.5
Sugar.	.70	10.8	.52	9.5	.75	11.4	.63	11.0	.68	2.30	10.9
Cocoa, chocolate, sweets.	.66	1.4	.65	1.2	.69	1.6	.36	1.8	.58	1.98	1.6
Spices, salt, vinegar, lemons, etc.	.50		.25		.56		.48		.49	1.65	
Coffee, pure and in mixtures.	.89	1.7	.73	2.0	.92	1.8	.55	1.1	.95	3.22	1.6
Coffee substitutes.	.33	2.8	.34	3.4	.43	3.1	.33	3.4	.36	1.23	3.1
Nonalcoholic drinks, tea, etc.	.29		.19		.31		.19		.25	.85	
Food substitutes.	.19				.36		.37		.33	1.12	
Other foodstuffs.	.51		.22		.48		.60		.49	1.66	
Total.	28.05		27.36		31.33		23.31		29.50	100.00	
Alcohol, tobacco, cigars.	.87		1.23		1.07		.98		1.00		
Foods and beverages consumed away from home.	1.29		.92		.91		.80		1.01		
Grand total.	30.21		29.51		33.31		30.09		31.50		

¹ Number.² Quarts.

A family of four persons of the income group considered in the preceding table expended on an average nearly 124 marks (\$29.51) for food consumed in the household. Of this amount 23.72 marks (\$5.65) went for meat and meat products, inclusive of 3.43 marks (82 cents) expended for conserved meat, 16.87 marks (\$4.02) for butter and fats, and 16.07 marks (\$3.83) for bread and bakery goods. The expenditure for potatoes was 8.28 marks (\$1.97), for eggs 8.21 marks (\$1.95), for milk 8.06 marks (\$1.92), for fish, fresh smoked, and conserved, 5.33 marks (\$1.27), for cheese 2.89 marks

(69 cents), and for fresh and preserved fruit and vegetables 6.04 marks (\$1.44). The total expenditure of the family for conserved food and food substitutes inclusive of coffee substitutes and other foodstuffs amounted to 14.20 marks (\$3.38).

The distribution of the expenditures for food within the individual occupational groups shows the following facts: The expenditures of workmen's families for bread and rolls, potatoes, and butter and fats were larger than the expenditures of low-salaried Government employees' and private employees' families for the same commodities. The expenditures of workmen's families for meat were larger than those of low-salaried Government employees' and smaller than those of private employees' families, while their expenditures for fish, eggs, jam, sugar, and coffee (inclusive of coffee substitutes) were larger than those of families of the other two occupational groups. The expenditures for food consumed away from home (in restaurants, etc.) were very considerable in the case of low-salaried Government employees. The consumption of the individual foodstuffs corresponded as a rule to the expenditures. The relative quantitative importance of the individual foodstuffs consumed in urban households has already been discussed.

The average monthly expenditures of families of four persons of the income group of over 200 to 300 marks (\$47.60 to \$71.40), by occupational groups, is shown in Table 6, as follows:

TABLE 6.—AVERAGE EXPENDITURES FOR APRIL, 1916, OF SELECTED GERMAN FAMILIES OF FOUR PERSONS WITH A MONTHLY FAMILY INCOME OF OVER 200 TO 300 MARKS (\$47.60 TO \$71.40), BY OCCUPATION OF HEADS OF FAMILIES.

[The totals in this table are not in all cases equal to the sum of the items, but they and the items are the exact equivalents of the figures in the original report. No explanation of the discrepancy is given.]

Object of expenditure.	Medium-salaried Government employees (13 families).	Private salaried employees (20 families).	Workmen (13 families).	Occupation not stated (13 families).	Average (59 families).	
					Amount.	Per cent.
Food and beverages consumed in and outside of the household.....	\$36.61	\$35.09	\$36.31	\$37.99	\$37.39	54.10
Fuel, wood, coal, light.....	2.67	3.37	1.91	2.59	2.78	4.02
Rent.....	9.82	8.71	5.91	7.16	8.00	11.57
Taxes.....	1.82	2.03	.95	1.59	1.67	2.42
Clothing, shoes, repairs.....	5.67	6.04	5.02	5.28	5.56	8.05
Miscellaneous expenditures:						
Laundry, soap, soda.....	1.48	1.36	1.68	1.68	1.53	2.21
Household utensils, furniture, etc.....	.35	.35	.27	.30	.32	.47
Books, newspapers, etc.....	.99	.99	.68	.95	.91	1.32
Car fare.....	1.01	1.59	1.12	.55	1.14	1.65
Physician, drugs.....	.96	1.24	.98	.79	1.04	1.52
Barber, baths.....	.38	.38	.34	.36	.37	.53
Insurance.....	2.43	3.20	1.26	1.49	2.23	3.22
Dues for societies.....	.43	.84	1.03	.90	.80	1.15
Amusements, sports.....	.48	.54	.55	.70	.53	.77
Gifts.....	1.29	2.52	2.26	.94	1.85	2.68
Wages, tips.....	.82	.80	.....	.40	.72	1.04
Miscellaneous.....	3.77	2.35	.55	1.32	2.27	3.28
Total.....	70.97	71.38	60.80	65.00	69.10	100.00

The average expenditures of a family of four persons of the income group of over 200 to 300 marks (\$47.60 to \$71.40) amounted to 290.35 marks (\$69.10). Although this amount is not so large as the highest income within the income group considered, it nevertheless indicates that a number of families in this group had lived beyond their income from earnings. Deficits in the household budgets of these families, which must have occurred frequently, were probably covered through expenditure of previous savings or through contraction of debts. Expenditures for food, amounting to 157.08 marks (\$37.39), formed more than half of the total expenditures. The expenditures for rent with 33.60 marks (\$8), for clothing, etc., with 23.38 marks (\$5.56), and heat and light with 11.69 marks (\$2.78) were the next largest items in the order named. The disbursements for insurance and gifts of 9.35 and 7.79 marks (\$2.23 and \$1.85), respectively, were also relatively large.

Considered by occupations the data shown in Table 6 again indicate that workmen's families spend more for food than salaried employees' families, but less for rent, clothing, books and newspapers, and for insurance. That their expenditures for insurance are seemingly smaller is probably due to the fact that the insurance premiums are generally deducted from their wages. In spite of the fact that the income of the workmen's families included in the table is generally lower than that of the families of Government and private employees, the disbursements of the former for dues to societies are considerably larger than those of the latter.

The average monthly expenditures for food are shown in detail in the following table for the same families as are considered in the preceding table.

TABLE 7.—EXPENDITURES FOR AND CONSUMPTION OF FOOD DURING APRIL, 1916, OF SELECTED GERMAN FAMILIES OF FOUR PERSONS WITH A MONTHLY FAMILY INCOME OF OVER 200 TO 300 MARKS (\$47.60 TO \$71.40), BY OCCUPATIONS OF HEADS OF FAMILIES.

[The totals in this table are not always equal to the sum of the items, but they and the items are the exact equivalents of the figures in the original report. No explanation of the discrepancy is given.]

Item.	Medium-salaried Government employees (13 families).		Private-salaried employees (20 families).		Workmen (13 families).		Occupation not stated (13 families).		Average (59 families).		
	Expenditure.	Consumption.	Expenditure.	Consumption.	Expenditure.	Consumption.	Expenditure.	Consumption.	Expenditure.		Consumption.
									Amount.	Per cent.	
Food consumed in the household:		Lbs.		Lbs.		Lbs.		Lbs.			Lbs.
Bread, rolls, etc.	\$3.22	66.8	\$3.12	71.6	\$3.53	76.1	\$3.61	92.9	\$3.34	9.84	76.2
Other bakery goods, cakes, etc.	.08	.....	.96	4.6	.84	.....	.44	2.1	.76	2.23	3.6
Flour, grits, farinaceous foods, etc.	1.49	14.5	1.27	11.1	1.04	11.4	1.31	1.4	1.28	3.76	12.4
Potatoes.	1.97	143.4	1.51	122.7	2.28	159.3	2.40	211.1	1.97	5.80	152.6
Butter lard, margarine, oil.	3.93	7.2	3.82	8.2	4.58	9.6	4.27	7.6	4.11	12.12	7.9
Meat, sausage, ham, etc.	7.23	16.9	6.54	12.0	6.55	12.7	7.05	11.5	6.69	19.69	13.1
Conserved meat.	.71	2.6	1.09	3.8	1.12	.....	1.03	.....	.99	2.92	3.4
Fish, smoked and fresh; crabs, etc.	.82	4.6	.87	7.3	.99	.....	.81	3.0	.87	2.57	5.6
Fish, canned.	.28	.....	.50	.....	.....	.....	.....	.....	.40	1.18	.....
Eggs.	2.15	136	.34	52	1.80	132	1.90	139	2.13	6.27	143
Milk, fresh.	2.10	35.9	2.32	39.1	2.15	47.6	1.85	35.9	2.13	6.28	40.2
Milk, condensed.	.36	.....	.58	.....	.....	.....	.....	.....	.48	1.42	.....
Cheese, cottage cheese, etc.	.92	2.4	.89	3.9	.83	.....	1.03	4.0	.91	2.69	3.6
Vegetables, (fresh and dried); fruit.	1.35	29.8	1.27	11.3	1.14	.....	1.70	17.6	1.37	4.05	16.8
Canned fruits and vegetables.	.63	12.4	.61	5.6	.74	.....	.65	6.6	.65	1.62	7.0
Jam, preserved fruits, etc.	.79	5.9	.95	7.2	.91	4.8	.95	8.3	.90	2.66	7.0
Sugar.	.68	8.5	.72	10.5	.78	11.2	.78	11.7	.74	2.17	10.5
Cocoa, chocolate, sweets.	.51	1.2	.63	1.1	.52	.....	.75	1.1	.62	1.82	1.1
Spices, salt, vinegar, lemons, etc.	.91	.....	.62	.....	.42	.....	.59	.....	.63	1.86	.....
Coffee, pure and in mixtures.	1.09	2.2	1.15	2.3	1.00	1.3	1.02	2.8	1.08	3.18	2.3
Coffee substitutes.	.38	2.7	.34	3.4	.45	1.2	.46	5.3	.40	1.18	3.2
Nonalcoholic beverages, tea, etc.	.64	.....	.45	.....	.37	.....	.33	.....	.46	1.35	.....
Food substitutes.	.45	.....	.44	.....	.49	.....	.28	.....	.40	1.18	.....
Other foodstuffs.	.94	.....	.67	.....	.43	.....	.33	.....	.63	1.86	.....
Total.	33.65	.....	31.66	.....	32.95	.....	33.54	.....	33.95	100.00	.....
Alcohol, tobacco, cigars.	1.39	.....	1.66	.....	1.61	.....	1.88	.....	1.62	.....	.....
Foods and beverages consumed away from home.	1.57	.....	1.77	.....	1.74	.....	2.57	.....	1.81	.....	.....
Grand total.	36.61	.....	35.09	.....	36.31	.....	37.99	.....	37.39	.....	.....

¹ Number.

² Quarts.

Of the individual items of the average family expenditures for food shown in Table 7 those for meat and meat products (inclusive of conserved meat), amounting to 32.27 marks (\$7.68), are much larger than the corresponding items in Table 5 for the next lowest income group. The average expenditures for bread and other bakery goods amounted to 17.22 marks (\$4.10), and nearly the same amount, 17.27 marks (\$4.11), was expended for butter and fats. The expenditure for potatoes, 8.28 marks (\$1.97), is the same as in Table 5. The total

expenditure for preserved foods and food substitutes and "other food-stuffs" was 16.61 marks (\$3.95) per family.

Of families with a monthly income of over 200 to 300 marks (\$47.60 to \$71.40) those of medium-salaried Government employees made the largest expenditures for fresh meat and the smallest expenditures for conserved meat. The expenditures for bread and rolls and fats and butter were largest in the case of workmen's families. Workmen's families also were the largest consumers of milk, but their expenditures for milk were smaller than those of the other occupational groups, which indicates that they must have consumed more skimmed milk than the latter. Of all occupational groups Government employees' families made the smallest expenditures for alcoholic beverages, tobacco, and meals in restaurants.

THE INVESTIGATION OF JULY, 1916.

In July, 1916, the War committee on consumers' interests made a second cost of living investigation. With the exception of a few unimportant alterations the schedule used was the same as that used in the April investigation. The same method of compilation was also employed, but only expenditures for food were considered, as it was rightly assumed that all other expenditures could not have undergone any noteworthy change during the relatively short period of three months. The schedules of 146 families with 644 persons and 601 units of consumption were included in the compilation. Most (101) of the households included were in large cities, 39 were in medium-sized, and only 6 in small cities. Only the following three income groups were considered:

100 to 200 marks (\$23.80 to \$47.60).....	46 families.
Over 200 to 300 marks (\$47.60 to \$71.40).....	50 families.
Over 300 marks (\$71.40).....	50 families.

According to the occupation of the head of the family the families included in the investigation were distributed as follows: Higher salaried Government employees, 22; medium-salaried Government employees, 36; private salaried employees, 31; workmen, 48; and free professions, 9. As in the April investigation, most of the families included, therefore, belonged to the middle classes.

Lack of space does not permit a reproduction in the MONTHLY REVIEW of the full results of this second investigation. For this reason it can only be mentioned here that the average expenditure per family for food was 43.19 marks (\$10.28) in July, 1916, as against 39.04 marks (\$9.29) in April, indicating an increase of 10.63 per cent for this three-month period.

WAGES AND HOURS OF LABOR IN THE IRON AND STEEL INDUSTRY, SEPTEMBER, 1917, COMPARED WITH MAY, 1915.

BY N. C. ADAMS.

The average earnings per hour of employees in the principal productive occupations of six departments of the iron and steel industry had increased, in September, 1917, as compared with May, 1915, as follows: In blast furnaces, 52 per cent; in Bessemer converters, 58 per cent; in open-hearth furnaces, 38 per cent; in blooming mills, 35 per cent; in plate mills, 50 per cent; and in sheet mills, 95 per cent. Full-time hours per week had changed very little in these 29 months, and full-time earnings per week had increased in the same proportions as the earnings per hour in four of the six departments, with an additional 3 per cent increase in the two remaining departments—open-hearth furnaces and sheet mills.

Many of the companies furnishing information for this report have notified the Bureau that they granted a further increase of 10 per cent in rates of pay to their employees in October, 1917, and it is believed that all of the companies represented joined in this additional increase. Hence the reader should bear in mind that even the very high figures here exhibited do not portray the full extent of the great increase in wages of iron and steel workers as a result of the War.

An additional evidence of the further increase in October, 1917, is furnished by the following statement prepared from figures in the February, 1918, issue of the MONTHLY REVIEW. The figures refer to entire plants instead of to selected departments as do the tables of this report, but the general trend is not especially disturbed by that fact. It will be seen that the index numbers for per capita earnings for the entire plants show an increase of 26 points, or 16 per cent, in October, 1917, as compared with the preceding month.

INDEX NUMBERS SHOWING VARIATIONS IN THE NUMBER OF PERSONS ON THE PAY ROLL, IN THE AMOUNTS OF SUCH PAY ROLLS, AND IN PER CAPITA EARNINGS—IRON AND STEEL.

[January, 1915 = 100.]

Date.	Number on pay roll.	Amount of pay roll.	Per capita earnings.
January, 1915.....	100	100	100
May, 1915.....	111	120	108
December, 1916.....	160	234	146
September, 1917.....	179	290	162
October, 1917.....	182	343	188

This bureau's latest bulletin on Wages and Hours of Labor in the Iron and Steel Industry (No. 218), issued in January, 1918, is a comprehensive study of general working conditions in the industry during the period extending from May, 1913, to June, 1915.

The three outstanding phases of that period were: First, the high rates of wages in May, 1913, which resulted from the industry's activities during the early part of that year; second, the steadily decreasing pay rolls of the remainder of 1913 and the entire year of 1914, the first year of the War; and, finally, the slowly improving conditions during the spring of 1915 resulting from the beginning of the War demands. Earnings per hour, however, in May, 1915, still were below those of May, 1913.

Bulletin 218 also presents some text and tabular statements compiled from issues of the MONTHLY REVIEW which clearly indicate the great increases in employment and in rates of pay which occurred between May, 1915, and December, 1916. The difference between the index numbers for per capita earnings for May, 1915, and December, 1916 (see preceding table), is 38, or an increase of 35 per cent for the latter month.

Bulletin 218 also contains a reference (October, 1917) to further increases shown by later data in the bureau's possession, but at that time uncompiled. The information referred to forms the basis of this brief report. It was furnished by various iron and steel companies in the United States and is for the pay-roll period ending September 15, 1917. It is presented here coupled, for the purpose of comparison, with similar data from identical plants, taken from the report for May, 1915 (Bulletin 218). A comparison between the index numbers for per capita earnings for May, 1915, and September, 1917, as shown in the preceding table, shows a gain of 54 points, or 50 per cent, in the last-named month.

This report embraces statistics for blast furnaces, Bessemer converters, open-hearth furnaces, blooming mills, plate mills, and sheet mills, so far as these departments are represented in sufficient numbers to form a basis for comparison, in the Eastern, Pittsburgh, Great Lakes and Middle West, and Southern districts of the United States. While the number of plants included is somewhat smaller than the number heretofore represented in the series of iron and steel wages bulletins, the report is sufficiently comprehensive to give a fair exposition of the phenomenal increases in earnings of iron and steel workers in 1917 as compared with 1915 and with pre-War periods.

Actual rates of wages per hour, full-time hours per week, and full-time earnings per week for the principal productive occupations of each of the six departments covered are shown in the table on pages 41 to 51, for identical plants, for September 15, 1917, and May 15, 1915.

These figures, together with similar figures for previous years taken from Bulletins 218, 168, and 151, are summarized in the form of relative numbers, which show the trend of wages and hours from year to year in each occupation and in each department as a whole. This table of relative numbers appears on pages 34 to 39, and the relatives for each department as a whole are reproduced in the table on page 32.

The heavy-faced figures of the following table are relative or index numbers and are simply percentages computed from the actual figures. In computing the index numbers the actual figures for 1913 are taken as the base, or 100 per cent; thus the facts for each other year reported are brought into direct comparison with the facts for the last complete year before the War.

Referring to the weekly-earnings column of the table for blast furnaces, it is seen that while such earnings in 1913 were higher than in any year of the period 1907 to 1915, inclusive, in 1917 they had increased 47 per cent as compared with 1913 and 52 per cent as compared with 1915. The greatest increase in weekly earnings is that shown for employees in sheet mills, whose weekly earnings in 1917 were 88 per cent higher than in the pre-War year 1913, 98 per cent higher than in 1915, and 119 per cent higher than in 1910. In computing the per cents of increase or decrease, other than those of each year with the year preceding, 1917 was used as a basis for comparison, as that is the first year shown in this report which reflects the very great War increases in rates and earnings.

RELATIVE FULL-TIME HOURS PER WEEK, WAGES PER HOUR, AND WEEKLY EARNINGS, TOGETHER WITH PER CENT OF INCREASE OR DECREASE, IN SPECIFIED YEARS, BY DEPARTMENTS.

[1913=100.]

Department and year.	Hours per week.			Wages per hour.			Weekly earnings.		
	Relative full-time hours per week.	Per cent of increase (+) or decrease (-) in—		Relative rate of wages per hour.	Per cent of increase (+) or decrease (-) in—		Relative full-time weekly earnings.	Per cent of increase (+) or decrease (-) in—	
		1917 as compared with each specified year.	Each specified year as compared with year preceding.		1917 as compared with each specified year.	Each specified year as compared with year preceding.		1917 as compared with each specified year.	Each specified year as compared with year preceding.
Blast furnaces:									
1907.....	103	-6	.....	87	+ 75	.....	90	+ 63	.....
1908.....	101	-4	-2	83	+ 83	- 5	85	+ 73	- 6
1909.....	102	-5	+1	82	+ 85	- 1	84	+ 75	- 1
1910.....	103	-6	+1	89	+ 71	+ 9	91	+ 62	+ 8
1911.....	102	-5	-1	90	+ 69	+ 1	91	+ 62	(1)
1912.....	99	-2	-3	92	+ 65	+ 2	91	+ 62	(1)
1913.....	100	-3	+1	100	+ 52	+ 9	100	+ 47	+10
1914.....	97	(1)	-3	100	+ 52	(1)	97	+ 52	- 3
1915.....	97	(1)	(1)	100	+ 52	(1)	97	+ 52	(1)
1917.....	97	.....	(1)	152	.....	+52	147	.....	+52
Bessemer converters:									
1907.....	103	-1	.....	84	+ 65	.....	86	+ 65	.....
1908.....	99	+3	-4	78	+ 78	- 7	79	+ 80	- 8
1909.....	103	-1	+4	81	+ 72	+ 4	84	+ 69	+ 6
1910.....	103	-1	(1)	85	+ 64	+ 5	88	+ 61	+ 5
1911.....	101	+1	-2	81	+ 72	- 5	84	+ 69	- 5
1912.....	101	+1	(1)	90	+ 54	+11	90	+ 58	+ 7
1913.....	100	+2	-1	100	+ 39	+11	100	+ 42	+11
1914.....	100	+2	(1)	85	+ 64	-15	87	+ 63	-13
1915.....	100	+2	(1)	88	+ 58	+ 4	90	+ 58	+ 3
1917.....	102	.....	+2	139	.....	+58	142	.....	+58
Open-hearth furnaces:									
1910.....	99	(1)	.....	88	+ 61	.....	88	+ 59	.....
1911.....	97	+2	-2	88	+ 61	(1)	86	+ 63	- 2
1912.....	99	(1)	+2	92	+ 54	+ 5	91	+ 54	+ 6
1913.....	100	-1	+1	100	+ 42	+ 9	100	+ 40	+10
1914.....	97	+2	-3	99	+ 43	- 1	96	+ 46	- 4
1915.....	97	+2	(1)	103	+ 38	+ 4	99	+ 41	+ 3
1917.....	99	.....	+2	142	.....	+38	140	.....	+41
Blooming mills:									
1910.....	101	+1	.....	84	+ 52	.....	85	+ 51	.....
1911.....	100	(1)	-1	85	+ 51	+ 1	86	+ 49	+ 1
1912.....	100	(1)	(1)	90	+ 42	+ 6	90	+ 42	+ 5
1913.....	100	(1)	(1)	100	+ 28	+11	100	+ 28	+11
1914.....	98	+2	-2	96	+ 33	- 4	95	+ 35	- 5
1915.....	99	+1	+1	95	+ 35	- 1	95	+ 35	(1)
1917.....	100	.....	+1	128	.....	+35	128	.....	+35
Plate mills:									
1910.....	99	+2	.....	89	+ 70	.....	88	+ 70	.....
1911.....	99	+2	(1)	86	+ 76	- 3	84	+ 79	- 5
1912.....	100	+1	+1	92	+ 64	+ 7	91	+ 65	+ 8
1913.....	100	+1	(1)	100	+ 51	+ 9	100	+ 50	+10
1914.....	99	+2	-1	95	+ 59	- 5	95	+ 58	- 5
1915.....	99	+2	(1)	101	+ 50	+ 6	100	+ 50	+ 5
1917.....	101	.....	+2	151	.....	+50	150	.....	+50
Sheet mills:									
1910.....	101	+2	.....	86	+113	.....	86	+119	.....
1911.....	100	+3	-1	93	+ 97	+ 8	93	+102	+ 8
1912.....	100	+3	(1)	96	+ 91	+ 3	96	+ 96	+ 3
1913.....	100	+3	(1)	100	+ 83	+ 4	100	+ 88	+ 4
1914.....	100	+3	(1)	102	+ 79	+ 2	102	+ 84	+ 2
1915.....	100	+3	(1)	94	+ 95	- 8	95	+ 98	- 7
1917.....	103	.....	+3	183	.....	+95	188	.....	+98

1 No change.

COMMON LABORERS.

The rate of wages paid common laborers is to a large extent a basic rate from which are determined the rates for other occupations requiring little skill, hence the rate for common labor is of importance beyond the limits of the occupation proper. The rate per hour of common labor is practically the same in all the departments of a plant, but the earnings per day or week, of course, are determined by the number of hours worked.

The following table shows, for each district, the average hourly rate paid to common laborers in each of the departments covered in this report.

AVERAGE RATES PER HOUR OF COMMON LABORERS IN EACH DEPARTMENT, BY DISTRICTS, 1915 AND 1917.

District and year.	All departments.	Blast furnaces.	Bessemer converters.	Open-hearth furnaces.	Blooming mills.	Plate mills.	Sheet mills.
Eastern:							
1915.....	\$0.151	\$0.157		\$0.151	\$0.160	\$0.147	
1917.....	.278	.271		.287	.250	.250	
Pittsburgh:							
1915.....	.190	.186	\$0.190	.198	.187	.188	\$0.191
1917.....	.301	.292	.299	.300	.300	.300	.321
Great Lakes and Middle West:							
1915.....	.190	.195	.191	.192	.190	.187	.180
1917.....	.313	.296	.297	.299	.295	.289	.335
Southern:							
1915.....	.152	.148		.158	.136		
1917.....	.222	.226		.221	.217		
Total:							
1915.....	.184	.182	.190	.187	.182	.172	.186
1917.....	.298	.281	.298	.292	.287	.294	.331

INDEX NUMBERS.

Relative or index numbers for each of the principal productive occupations in each of the six departments covered by this report appear in the following pages, (34 to 39). As before stated these index numbers are simply percentages computed from the actual figures of earnings and hours, the figures for 1913, the last complete year before the War, being used as the base or 100 per cent.

Blast furnace employees with the exception of blowers are paid an hourly or a daily rate, and there is a decided uniformity in the increases in earnings of 1917 over 1913 as shown by the relative numbers. But in the other departments, with the exception of sheet mills, while the uniformity is still apparent in the relative numbers for laborers and other unskilled or semiskilled employees who, for by far the greater part, are paid time rates, there is a perceptibly smaller increase shown in the relative numbers for the highly skilled tonnage workers. Sheet mills on the other hand show a smaller increase in weekly earnings for laborers than for the very highly skilled other employees in the rolling gang. These laborers' earnings, however, show a greater relative increase than do laborers in any of the five other departments.

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The increases for the sheet mill department are the greatest brought out by this report, weekly earnings for all occupations combined being 98 per cent higher in 1917 than in 1915.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1907 TO 1917,¹ BY OCCUPATIONS.

BLAST FURNACES.

[1913=100.]

Year.	Full-time hours per week.	Rate of wages per hour.	Full-time weekly earnings.	Full-time hours per week.	Rate of wages per hour.	Full-time weekly earnings.	Full-time hours per week.	Rate of wages per hour.	Full-time weekly earnings.
	Stockers.			Skip operators.			Iron handlers and loaders.		
1907.....	102	88	90	102	89	91	104	92	96
1908.....	99	81	81	102	85	87	105	91	95
1909.....	101	82	83	102	85	87	105	85	88
1910.....	101	86	87	102	91	92	104	93	97
1911.....	101	87	89	101	91	93	102	94	95
1912.....	100	90	90	96	95	90	101	94	94
1913.....	100	100	100	100	100	100	100	100	100
1914.....	96	99	95	96	100	96	99	98	97
1915.....	96	99	94	96	101	96	100	91	92
1917.....	99	157	154	93	154	143	100	137	138
	Bottom fillers.			Blowers.			Pig machine men.		
1907.....	103	92	94	102	88	90	103	86	89
1908.....	103	86	88	102	83	85	103	84	87
1909.....	103	80	81	102	84	86	103	84	86
1910.....	103	92	94	102	90	93	103	88	91
1911.....	103	90	92	101	93	95	101	88	89
1912.....	100	92	92	98	96	93	100	89	89
1913.....	100	100	100	100	100	100	100	100	100
1914.....	100	99	99	98	99	97	97	100	97
1915.....	99	101	99	98	100	98	97	99	97
1917.....	99	165	162	95	139	132	95	157	148
	Top fillers.			Blowing engineers.			Cinder men.		
1907.....	104	87	90	103	91	94	107	94	102
1908.....	104	82	85	103	89	91	106	85	91
1909.....	104	79	82	103	87	89	106	81	87
1910.....	104	88	92	103	92	95	107	90	97
1911.....	102	89	91	102	93	94	105	87	92
1912.....	100	92	91	99	95	93	97	91	87
1913.....	100	100	100	100	100	100	100	100	100
1914.....	99	99	97	97	100	96	97	97	94
1915.....	97	100	97	96	100	96	98	96	94
1917.....	97	146	140	93	148	138	97	151	147
	Larrymen.			Keepers.			Laborers.		
1907.....	102	88	90	103	91	94	106	84	90
1908.....	102	83	85	103	88	90	102	81	83
1909.....	102	84	86	103	86	88	102	80	82
1910.....	102	91	93	103	92	94	103	88	90
1911.....	101	90	91	101	93	94	101	88	90
1912.....	95	93	88	97	95	92	101	89	90
1913.....	100	100	100	100	100	100	100	100	100
1914.....	96	100	96	97	99	96	98	102	99
1915.....	96	99	94	97	99	95	98	98	96
1917.....	93	150	139	94	144	136	101	152	154

¹ Except 1916; no data for that year were gathered.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1907 TO 1917,¹ BY OCCUPATIONS—Continued.

BLAST FURNACES—Concluded.

Year	Full-time hours per week.	Rate of wages per hour.	Full-time weekly earnings.	Full-time hours per week.	Rate of wages per hour.	Full-time weekly earnings.	Full-time hours per week.	Rate of wages per hour.	Full-time weekly earnings.
	Larrymen's helpers.			Keepers' helpers.			All occupations.		
1907.....	102	84	86	101	90	90	103	87	90
1908.....	102	81	82	101	87	87	101	83	85
1909.....	102	79	81	101	84	85	102	82	84
1910.....	102	86	88	101	92	93	103	89	91
1911.....	100	88	88	100	91	91	102	90	91
1912.....	96	91	87	98	93	90	99	92	91
1913.....	100	100	100	100	100	100	100	100	100
1914.....	95	99	94	98	100	97	97	100	97
1915.....	95	98	92	97	98	95	97	100	97
1917.....	92	153	140	95	153	144	97	152	147

BESSEMER CONVERTERS.

	Stockers.			Vesselmen's helpers.			Stopper setters.		
1907.....	100	73	74	105	103	109	102	111	111
1908.....	93	81	77	110	68	74	107	60	65
1909.....	102	78	79	110	88	97	110	97	103
1910.....	104	79	83	102	95	99	102	103	105
1911.....	99	69	70	104	79	82	107	89	92
1912.....	99	92	91	101	88	89	100	89	89
1913.....	100	100	100	100	100	100	100	100	100
1914.....	98	86	86	97	64	63	96	66	66
1915.....	98	77	77	99	72	72	101	74	76
1917.....	98	150	146	100	124	123	98	142	139
	Cupola melters.			Cinder pitmen.			Steel pourers.		
1907.....	106	106	113	103	84	85	103	106	107
1908.....	105	73	79	100	71	72	107	67	71
1909.....	105	87	93	103	73	76	107	88	93
1910.....	99	93	92	102	87	88	102	96	97
1911.....	105	81	87	105	82	87	101	83	82
1912.....	99	86	84	101	84	85	100	90	90
1913.....	100	100	100	100	100	100	100	100	100
1914.....	101	68	69	106	94	103	96	67	67
1915.....	100	79	78	106	94	103	98	79	80
1917.....	96	155	142	106	137	149	95	132	125
	Cupola tappers.			Bottom makers.			Mold cappers.		
1907.....	104	95	100	99	98	98	98	86	84
1908.....	101	84	89	98	72	71	97	49	50
1909.....	105	85	90	99	89	89	97	67	67
1910.....	101	91	92	100	90	90	99	81	89
1911.....	101	80	83	97	88	86	112	73	82
1912.....	102	94	94	98	90	89	103	84	85
1913.....	100	100	100	100	100	100	100	100	100
1914.....	100	60	62	99	76	76	102	70	74
1915.....	98	70	69	99	87	86	102	79	83
1917.....	95	147	134	97	148	145	94	148	138
	Blowers.			Bottom makers' helpers.			Ingot strippers.		
1907.....	104	102	105	101	93	94	97	92	85
1908.....	109	77	86	99	74	74	98	70	71
1909.....	109	80	88	100	85	85	101	78	79
1910.....	111	88	98	100	87	87	97	91	86
1911.....	114	82	95	99	86	86	101	84	84
1912.....	109	88	97	99	88	87	98	96	92
1913.....	100	100	100	100	100	100	100	100	100
1914.....	104	91	94	99	89	88	101	91	92
1915.....	103	94	98	100	94	94	101	97	98
1917.....	97	129	124	98	154	152	99	149	146

¹ Except 1916; no data for that year were gathered.

36 MONTHLY REVIEW OF THE BUREAU OF LABOR STATISTICS.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1907 TO 1917,¹ BY OCCUPATIONS—Continued.

BESSEMER CONVERTERS—Concluded.

Year.	Full-time hours per week.	Rate of wages per hour.	Full-time weekly earnings.	Full-time hours per week.	Rate of wages per hour.	Full-time weekly earnings.	Full-time hours per week.	Rate of wages per hour.	Full-time weekly earnings.
	Regulators, first.			Ladle liners.			Laborers.		
1907.....	99	93	93	95	112	106	104	81	85
1908.....	103	56	60	96	75	72	101	81	82
1909.....	103	73	78	95	96	92	102	79	81
1910.....	97	88	87	97	94	92	104	85	89
1911.....	105	81	85	99	85	84	99	87	87
1912.....	101	89	90	100	92	92	101	87	88
1913.....	100	100	100	100	100	100	100	100	100
1914.....	104	67	69	99	73	73	101	100	101
1915.....	105	72	76	99	82	82	101	100	101
1917.....	102	134	136	105	138	147	103	157	162
	Regulators, second.			Ladle liners' helpers.			All occupations.		
1907.....	104	101	105	98	99	95	103	84	86
1908.....	117	64	74	97	81	79	99	78	79
1909.....	118	87	101	98	89	87	103	81	84
1910.....	106	96	102	98	93	91	103	85	88
1911.....	102	84	85	99	91	91	101	81	84
1912.....	100	93	93	100	89	89	101	90	90
1913.....	100	100	100	100	100	100	100	100	100
1914.....	101	71	72	97	91	90	100	85	87
1915.....	101	80	82	98	96	94	100	88	90
1917.....	100	136	135	101	150	155	102	139	142
	Vesselmen.			Stopper markers.					
1907.....	106	101	107	103	104	107			
1908.....	111	67	75	103	73	75			
1909.....	111	80	89	101	88	90			
1910.....	102	90	94	103	86	90			
1911.....	105	76	79	102	90	92			
1912.....	102	93	94	100	90	89			
1913.....	100	100	100	100	100	100			
1914.....	98	66	67	99	84	83			
1915.....	98	73	75	98	88	86			
1917.....	108	119	128	97	137	132			

OPEN-HEARTH FURNACES.

	Stockers.			Melters' helpers, third.			Ingot strippers.		
1910.....	99	90	90	99	91	90	100	92	91
1911.....	96	87	83	96	86	82	97	86	83
1912.....	99	89	88	98	92	90	98	94	92
1913.....	100	100	100	100	100	100	100	100	100
1914.....	99	104	102	99	97	96	99	97	95
1915.....	99	101	100	100	99	99	99	100	100
1917.....	98	153	151	98	154	151	94	149	138
	Stock cranemen.			Stopper setters.			Laborers.		
1910.....	100	91	91	100	85	85	98	84	83
1911.....	96	84	81	96	85	83	96	87	83
1912.....	99	95	95	99	90	89	98	88	86
1913.....	100	100	100	100	100	100	100	100	100
1914.....	99	100	99	96	90	86	93	101	94
1915.....	98	107	105	96	93	88	95	101	96
1917.....	97	143	138	95	132	125	100	158	158

¹ Except 1916; no data for that year were gathered.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1907 TO 1917,¹ BY OCCUPATIONS—Continued.

OPEN-HEARTH FURNACES—Concluded.

Year.	Full-time hours per week.	Rate of wages per hour.	Full-time weekly earnings.	Full-time hours per week.	Rate of wages per hour.	Full-time weekly earnings.	Full-time hours per week.	Rate of wages per hour.	Full-time weekly earnings.
	Charging-machine operators.			Steel pourers.			All occupations.		
1910.....	99	88	87	99	90	88	99	88	88
1911.....	96	86	82	97	89	86	97	88	86
1912.....	97	93	91	99	91	90	99	92	91
1913.....	100	100	100	100	100	100	100	100	100
1914.....	99	92	91	99	92	90	97	99	96
1915.....	99	99	98	98	96	94	97	103	99
1917.....	99	131	128	99	120	118	99	142	140
	Melters' helpers, first.			Mold cappers.					
1910.....	101	95	96	101	86	87			
1911.....	98	91	89	98	86	83			
1912.....	100	95	94	100	89	88			
1913.....	100	100	100	100	100	100			
1914.....	97	96	93	98	91	89			
1915.....	97	100	97	96	99	95			
1917.....	99	127	126	97	137	135			
	Melters' helpers, second.			Ladle cranemen.					
1910.....	100	93	94	100	86	86			
1911.....	98	90	89	96	84	81			
1912.....	99	94	94	98	93	92			
1913.....	100	100	100	100	100	100			
1914.....	97	96	92	99	90	89			
1915.....	96	100	96	98	96	95			
1917.....	100	132	133	99	126	125			

BLOOMING MILLS.

	Pit cranemen.			Roll engineers.			Shearmen's helpers.		
1910.....	102	82	82	103	81	85	101	82	81
1911.....	100	81	80	103	80	84	99	81	80
1912.....	100	86	86	101	89	90	100	89	88
1913.....	100	100	100	100	100	100	100	100	100
1914.....	100	91	91	99	90	90	99	93	93
1915.....	100	96	95	98	95	95	99	94	93
1917.....	94	152	140	96	137	133	101	142	147
	Heaters.			Rollers.			Laborers.		
1910.....	100	86	85	103	83	87	101	87	88
1911.....	100	84	84	102	81	83	101	88	88
1912.....	100	91	91	100	90	90	101	89	89
1913.....	100	100	100	100	100	100	100	100	100
1914.....	99	86	86	99	90	90	99	101	100
1915.....	100	93	93	99	92	92	99	101	100
1917.....	89	130	118	97	123	121	101	159	160
	Heaters' helpers.			Manipulators.			All occupations.		
1910.....	101	88	87	103	84	88	101	84	85
1911.....	101	93	95	102	81	84	100	85	86
1912.....	101	90	91	101	90	90	100	90	90
1913.....	100	100	100	100	100	100	100	100	100
1914.....	99	94	92	98	90	89	98	96	95
1915.....	99	98	96	99	95	96	99	95	95
1917.....	77	162	131	96	149	144	100	128	128

¹ Except 1916; no data for that year were gathered.

38 MONTHLY REVIEW OF THE BUREAU OF LABOR STATISTICS.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1907 TO 1917,¹ BY OCCUPATIONS—Continued.

BLOOMING HILLS—Concluded.

Year.	Full-time hours per week.	Rate of wages per hour.	Full-time weekly earnings.	Full-time hours per week.	Rate of wages per hour.	Full-time weekly earnings.	Full-time hours per week.	Rate of wages per hour.	Full-time weekly earnings.
	Bottom makers.			Tablemen.					
1910.....	99	57	56	102	87	87			
1911.....	100	86	85	101	82	82			
1912.....	100	90	90	101	92	92			
1913.....	100	100	100	100	100	100			
1914.....	100	95	94	100	86	87			
1915.....	100	90	98	99	90	89			
1917.....	103	150	153	97	127	125			
	Bottom makers' helpers.			Shearmen.					
1910.....	100	91	90	101	81	82			
1911.....	100	88	88	100	82	83			
1912.....	100	93	93	100	88	88			
1913.....	100	100	100	100	100	100			
1914.....	99	96	97	98	80	87			
1915.....	100	97	97	99	93	92			
1917.....	103	142	146	101	133	134			

PLATE MILLS.

	Charging-crane and charging-machine operators.			Screwmen.			Shearmen's helpers.		
1910.....	103	88	91	100	85	84	100	86	85
1911.....	99	82	82	100	79	79	100	83	82
1912.....	99	92	91	100	90	90	100	89	89
1913.....	100	100	100	100	100	100	100	100	100
1914.....	99	89	89	99	87	87	99	96	96
1915.....	100	96	96	99	95	95	100	103	103
1917.....	99	141	141	100	135	136	100	162	162
	Heaters.			Table operators.			Laborers.		
1910.....	101	91	92	100	86	86	97	83	86
1911.....	98	84	82	100	81	81	96	86	84
1912.....	99	92	90	100	93	92	99	89	89
1913.....	100	100	100	100	100	100	100	100	100
1914.....	100	103	93	99	89	89	99	90	99
1915.....	100	97	98	99	93	93	98	90	97
1917.....	96	134	129	101	143	144	104	170	176
	Heaters' helpers.			Hookmen.			All occupations.		
1910.....	103	95	97	100	84	83	99	89	88
1911.....	100	89	88	100	79	78	99	86	84
1912.....	100	96	96	100	89	88	100	92	91
1913.....	100	100	100	100	100	100	100	100	100
1914.....	100	95	93	99	88	88	99	95	95
1915.....	100	101	101	99	95	94	99	101	100
1917.....	99	100	185	101	148	148	101	151	150
	Roll engineers.			Roll hands, other.					
1910.....	100	96	95	99	91	89			
1911.....	99	93	91	100	83	83			
1912.....	100	98	93	100	96	96			
1913.....	100	100	100	100	100	100			
1914.....	97	99	96	99	93	93			
1915.....	97	100	96	99	97	97			
1917.....	98	151	147	101	142	144			

¹ Except 1916; no data for that year were gathered.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1907 TO 1917,¹ BY OCCUPATIONS—Concluded.

PLATE MILLS—Concluded.

Year.	Full-time hours per week.	Rate of wages per hour.	Full-time weekly earnings.	Full-time hours per week.	Rate of wages per hour.	Full-time weekly earnings.	Full-time hours per week.	Rate of wages per hour.	Full-time weekly earnings.
	Rollers.			Shearmen.					
1910.....	100	97	96	98	91	89	.....	.....	.....
1911.....	100	83	82	99	86	85	.....	.....	.....
1912.....	100	99	99	99	93	93	.....	.....	.....
1913.....	100	100	100	100	100	100	.....	.....	.....
1914.....	99	92	92	99	97	96	.....	.....	.....
1915.....	99	96	96	99	104	102	.....	.....	.....
1917.....	100	136	137	102	154	155	.....	.....	.....

SHEET MILLS.

	Fair heaters.			Doubblers.			Openers.		
1910.....	100	86	86	100	85	85	102	93	95
1911.....	100	93	93	100	92	91	100	94	94
1912.....	100	95	95	100	94	94	101	98	99
1913.....	100	100	100	100	100	100	100	100	100
1914.....	100	99	99	100	107	107	100	97	97
1915.....	100	95	95	100	105	105	102	94	96
1917.....	102	193	202	102	217	222	103	232	240
	Rollers.			Sheet heaters.			Laborers.		
1910.....	100	87	87	100	92	92	98	85	84
1911.....	100	96	96	100	95	95	98	86	85
1912.....	100	99	99	100	99	99	98	88	87
1913.....	100	100	100	100	100	100	100	100	100
1914.....	100	97	97	100	97	97	102	100	101
1915.....	100	87	87	100	87	87	100	100	100
1917.....	102	184	188	102	186	190	94	178	163
	Roughers.			Sheet heaters' helpers.			All occupations.		
1910.....	100	86	86	100	74	74	101	86	86
1911.....	100	93	93	100	85	85	100	93	93
1912.....	100	95	95	100	86	86	100	96	96
1913.....	100	100	100	100	100	100	100	100	100
1914.....	100	100	100	100	102	102	100	102	102
1915.....	100	96	96	100	97	97	100	94	95
1917.....	102	204	208	100	199	201	103	183	188
	Catchers.			Shearmen.					
1910.....	100	85	85	102	85	84	.....	.....	.....
1911.....	100	92	92	100	89	90	.....	.....	.....
1912.....	100	95	95	100	94	95	.....	.....	.....
1913.....	100	100	100	100	100	100	.....	.....	.....
1914.....	100	100	100	100	103	103	.....	.....	.....
1915.....	100	94	94	100	99	99	.....	.....	.....
1917.....	102	199	203	101	169	172	.....	.....	.....
	Matchers.			Shearmen's helpers.					
1910.....	100	86	86	103	90	93	.....	.....	.....
1911.....	100	93	93	100	106	106	.....	.....	.....
1912.....	100	95	95	100	100	100	.....	.....	.....
1913.....	100	100	100	100	100	100	.....	.....	.....
1914.....	100	107	107	100	115	116	.....	.....	.....
1915.....	100	105	105	102	99	101	.....	.....	.....
1917.....	102	219	224	103	219	225	.....	.....	.....

¹ Except 1916; no data for that year were gathered.

The working time of employees, as shown in the following table of average hours and wages, is not always the working time of their occupation as a whole. Some plants make provision for laying off one day a week each employee working in a department which operates seven days per week, as blast furnaces, for example. In such plants the full-time hours per week of an employee working 12 hours a day is 72 hours. In a plant making no such provision, the full-time hours per week of an employee working 12 hours a day is 84 hours.

In the 18 blast furnaces covered by this report 56 per cent of the employees shown worked 7 days per week in 1915 and 8 per cent 6 and 7 days alternately, while only 50 per cent worked 7 days in 1917, and 6 per cent worked 6 and 7 days alternately. The remaining 36 per cent in 1915 and 44 per cent in 1917 worked 6 days. This shows a reduction of 6 per cent in the number of 7-day workers between May 15, 1915, and September 15, 1917, and is a reduction of 47 per cent between May 15, 1907, when 97 per cent of the blast furnace employees reported worked 7 days each week, and September 15, 1917.

The rates of wages per hour appearing in the table include both the wages of time workers and the earnings of tonnage or piece workers. All time rates by the day or week have been reduced to rates per hour. The earnings of tonnage workers, the earnings of employees working at both time and tonnage rates, and the earnings of employees who, in addition to a regular time rate, receive a bonus based on production, also have been reduced to earnings per hour by dividing the earnings by the hours worked. The time workers and tonnage workers of each occupation are combined as one group.

In this connection it should be noted that while in other industries the earnings of employees paid on a piecework basis usually are proportionate to the exertion and skill of the individual employee, in the iron and steel industry the earnings of tonnage workers depend upon the production of an entire department or group of employees.

The average rates of wages per hour given are true averages. In the majority of cases the very great variation in the rates of a district are the results of a variation in the custom of working two or three shifts per day. Employees who are put on a three-shift (8 hour) basis naturally demand an hourly rate which will approximately equalize their daily earnings with those of men on a two-shift (12 hour) basis.

Average weekly earnings also are true averages, aggregate weekly earnings having been computed for employees of each plant separately, and the total, for all plants combined, divided by the total number of employees. Multiplying the average hours per week by the average rate per hour will not always give the same average

weekly earnings as the true average, especially in cases where there are extreme variations between the several plants in either rates or hours.

Rates of pay are highest usually in the Pittsburgh and Great Lakes and Middle West districts, and in general it appears that there is a great similarity between rates in these two districts. Rates in the Eastern district are decidedly lower and those in the Southern district as a whole still lower.

One general exception, however, should be noted for the Southern district. The rates of some highly skilled occupations are as high as in any of the other districts. The reason for this condition is said to be that employees in these occupations, for a large part, are brought from the northern districts and will not accept a lower rate than they formerly received, and in some cases will not go to the warmer climate, to which they are not accustomed, unless they are given a higher rate even than that paid in the Pittsburgh or the Great Lakes district. On the other hand, occupations requiring little skill, including common laborers, are recruited to a great extent from the Negroes, who are paid less than the whites in the same occupation.

The lower rates paid in the Eastern district are in a measure due to the fact that many of the plants are located in small cities and towns where living costs, especially housing, are less than in the congested centers of the Pittsburgh and Great Lakes districts.

The table of average earnings and hours for the principal productive occupations in each department follows:

AVERAGE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, IN EACH DISTRICT, 1915 AND 1917.

BLAST FURNACES.

[The figures for each group of years are for identical plants.]

Occupation, district, and number of plants.	Year.	Number of em- ploy- ees.	Average full- time hours per week.	Average rate of wages per hour.	Average full- time weekly earn- ings.	Occupation, district, and number of plants.	Year.	Number of em- ploy- ees.	Average full- time hours per week.	Average rate of wages per hour.	Average full- time weekly earn- ings.
<i>Stockers.</i>						<i>Bottom fillers.</i>					
Eastern:						Eastern:					
2 plants.....	1915	36	68.3	\$0.148	\$10.06	1 plant.....	1915	36	84.0	\$0.172	\$14.41
	1917	71	73.9	.272	20.06		1917	44	84.0	.285	23.94
Pittsburgh:						Southern:					
4 plants.....	1915	269	75.7	.195	14.75	2 plants.....	1915	10	84.0	.139	11.64
	1917	218	81.8	.301	24.63		1917	12	84.0	.215	18.06
Great Lakes and Middle West:						Total:					
4 plants.....	1915	88	72.8	.198	14.40	3 plants.....	1915	46	84.0	.164	13.81
	1917	97	72.0	.324	23.35		1917	56	84.0	.270	22.68
Southern:						<i>Top fillers.</i>					
4 plants.....	1915	59	77.8	.154	12.01						
	1917	55	74.2	.246	18.02	Eastern:					
Total:						1 plant.....	1915	10	84.0	.200	16.80
14 plants....	1915	452	74.8	.186	13.95		1917	16	84.0	.275	23.10
	1917	441	77.4	.295	22.79						

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FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, IN EACH DISTRICT, 1915 AND 1917—Continued.

BLAST FURNACES—Continued.

[The figures for each group of years are for identical plants.]

Occupation, district, and number of plants.	Year.	Num- ber of em- ploy- ees.	Ave- rage full- time hours per week.	Ave- rage rate of wages per hour.	Ave- rage full- time weekly earn- ings.	Occupation, district, and number of plants.	Year.	Num- ber of em- ploy- ees.	Ave- rage full- time hours per week.	Ave- rage rate of wages per hour.	Ave- rage full- time weekly earn- ings.
<i>Top fillers— Concluded.</i>						<i>Blowers.</i>					
Southern:						Eastern:					
2 plants.....	1915	6	84.0	\$0.139	\$11.68	3 plants.....	1915	8	81.0	\$0.399	\$24.87
	1917	6	84.0	.208	17.50		1917	10	79.2	.415	32.99
Total:						Pittsburgh:					
3 plants.....	1915	16	84.0	.177	14.88	5 plants.....	1915	37	81.2	.356	28.72
	1917	22	84.0	.257	21.57		1917	31	80.2	.488	39.16
<i>Larrymen.</i>						Great Lakes and Middle West:					
Eastern:						5 plants.....	1915	21	76.0	.400	30.00
1 plant.....	1915	2	84.0	.175	14.70		1917	25	72.5	.561	40.63
	1917	5	84.0	.290	24.36	Southern:					
Pittsburgh:						5 plants.....	1915	18	84.0	.288	24.18
5 plants.....	1915	66	81.2	.222	18.04		1917	18	80.0	.415	32.83
	1917	68	81.2	.333	27.10	Total:					
Great Lakes and Middle West:						18 plants.....	1915	84	80.5	.348	27.82
5 plants.....	1915	46	74.1	.238	17.08		1917	84	77.8	.485	37.50
	1917	84	73.1	.352	25.73	<i>Blowing engi- neers.</i>					
Southern:						Eastern:					
3 plants.....	1915	26	84.0	.160	13.41	3 plants.....	1915	8	81.0	.210	17.05
	1917	26	78.5	.235	18.23		1917	16	82.5	.331	27.36
Total:						Pittsburgh:					
14 plants....	1915	140	79.4	.215	17.01	5 plants.....	1915	28	80.3	.298	23.56
	1917	183	77.2	.327	25.14		1917	28	78.9	.417	32.81
<i>Larrymen's helpers.</i>						Great Lakes and Middle West:					
Eastern:						5 plants.....	1915	37	73.9	.273	20.20
1 plant.....	1915	2	84.0	.150	12.60		1917	60	72.4	.419	30.33
	1917	11	84.0	.270	22.68	Southern:					
Pittsburgh:						5 plants.....	1915	18	84.0	.220	18.44
5 plants.....	1915	90	81.9	.193	15.83		1917	18	78.7	.310	24.23
	1917	90	81.9	.299	24.52	Total:					
Great Lakes and Middle West:						18 plants....	1915	91	78.5	.263	20.61
4 plants.....	1915	26	78.5	.190	14.97		1917	122	76.1	.391	29.61
	1917	44	75.3	.306	23.03	<i>Keepers.</i>					
Southern:						Eastern:					
2 plants.....	1915	16	84.0	.154	12.94	3 plants.....	1915	8	81.0	.201	16.27
	1917	16	75.0	.223	16.55		1917	18	81.3	.308	25.04
Total:						Pittsburgh:					
12 plants....	1915	134	81.5	.187	15.27	5 plants.....	1915	54	80.1	.257	20.54
	1917	161	79.6	.292	23.20		1917	58	80.4	.372	29.86
<i>Skip operators.</i>						Great Lakes and Middle West:					
Eastern:						5 plants.....	1915	36	74.7	.248	18.53
1 plant.....	1915	2	84.0	.175	14.70		1917	62	73.2	.361	26.41
	1917	4	84.0	.290	24.36	Southern:					
Pittsburgh:						5 plants.....	1915	23	84.0	.179	15.05
5 plants.....	1915	50	80.2	.239	19.14		1917	24	78.0	.258	20.00
	1917	54	79.6	.357	28.38	Total:					
Great Lakes and Middle West:						18 plants....	1915	121	79.3	.236	18.62
4 plants.....	1915	26	75.7	.234	17.81		1917	162	77.4	.344	26.55
	1917	40	73.8	.365	26.93	<i>Keepers' help- ers.</i>					
Southern:						Eastern:					
3 plants.....	1915	20	84.0	.182	15.31	3 plants.....	1915	28	81.4	.168	13.70
	1917	20	76.8	.274	21.09		1917	52	81.7	.274	22.35
Total:						Pittsburgh:					
13 plants....	1915	98	79.9	.224	17.91	5 plants.....	1915	174	79.6	.208	16.53
	1917	118	77.3	.343	29.52		1917	132	79.2	.319	25.27
						Great Lakes and Middle West:					
						5 plants.....	1915	112	75.0	.205	15.35
							1917	122	73.2	.320	23.38

FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, IN EACH DISTRICT, 1915 AND 1917—Continued.

BLAST FURNACES—Concluded.

[The figures for each group of years are for identical plants.]

Occupation, district, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Occupation, district, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.
<i>Keepers' helpers—Concluded.</i>						<i>Cindermen.</i>					
Southern:						Eastern:					
5 plants.....	1915	100	84.0	\$0.142	\$11.91	2 plants.....	1915	7	78.9	\$0.152	\$11.99
	1917	86	79.0	.223	17.49		1917	12	78.0	.256	19.96
Total:						Pittsburgh:					
18 plants....	1915	414	79.5	.186	14.91	3 plants.....	1915	78	78.0	.192	14.92
	1917	392	77.6	.292	22.59		1917	54	81.8	.305	24.95
<i>Iron handlers and loaders.</i>						Great Lakes and Middle West:					
Eastern:						4 plants.....	1915	44	79.5	.192	15.25
1 plant.....	1915	3	60.0	.185	11.10		1917	68	73.1	.311	22.68
	1917	6	72.0	.242	17.43	Southern:					
Southern:						4 plants.....	1915	27	82.4	.135	11.09
3 plants.....	1915	59	71.9	.161	11.60		1917	34	84.0	.217	18.20
	1917	100	71.4	.244	17.44	Total:					
Total:						13 plants....	1915	156	79.2	.181	14.22
4 plants.....	1915	62	71.3	.162	11.57		1917	108	78.4	.286	22.31
	1917	106	71.4	.243	17.44	<i>Laborers.</i>					
<i>Pig machine men.</i>						Eastern:					
Eastern:						3 plants.....	1915	21	62.8	.157	9.83
1 plant.....	1915	8	84.0	.156	13.10		1917	101	62.4	.271	16.84
	1917	19	84.0	.260	21.84	Pittsburgh:					
Pittsburgh:						5 plants.....	1915	197	76.3	.186	14.23
3 plants.....	1915	60	82.3	.192	15.81		1917	366	82.3	.292	24.04
	1917	30	83.3	.294	24.47	Great Lakes and Middle West:					
Great Lakes and Middle West:						5 plants.....	1915	190	69.2	.195	13.46
5 plants.....	1915	42	75.4	.202	15.27		1917	139	70.2	.296	20.77
	1917	97	74.5	.321	23.87	Southern:					
Southern:						4 plants.....	1915	88	77.7	.148	11.50
1 plant.....	1915	8	84.0	.125	10.50		1917	92	69.4	.226	15.55
	1917	8	84.0	.163	13.69	Total:					
Total:						17 plants....	1915	496	73.3	.182	13.26
10 plants....	1915	127	80.2	.189	15.12		1917	698	75.3	.281	21.23
	1917	154	77.9	.300	23.21						

BESSEMER CONVERTERS.

<i>Stockers.</i>						<i>Cupola tappers.</i>					
Pittsburgh:						Pittsburgh:					
2 plants.....	1915	84	52.3	\$0.317	\$16.06	1 plant.....	1915	12	50.3	\$0.319	\$16.00
	1917	112	50.6	.659	32.47		1917	12	48.0	.773	37.16
Great Lakes and Middle West:						Great Lakes and Middle West:					
1 plant.....	1915	19	71.4	.264	18.83	1 plant.....	1915	4	72.0	.324	23.33
	1917	32	72.0	.387	27.86		1917	4	72.0	.390	28.08
Total:						Total:					
3 plants.....	1915	103	55.8	.307	16.57	2 plants.....	1915	16	55.8	.320	17.87
	1917	144	55.3	.509	31.45		1917	16	54.0	.672	34.85
<i>Cupola melters.</i>						<i>Blowers.</i>					
Pittsburgh:						Pittsburgh:					
2 plants.....	1915	5	19.0	.371	21.76	5 plants.....	1915	11	65.5	.560	36.48
	1917	5	57.6	.866	49.07		1917	12	60.0	.825	47.94
Great Lakes and Middle West:						Great Lakes and Middle West:					
1 plant.....	1915	2	78.0	.417	32.53	3 plants.....	1915	6	72.5	.582	42.27
	1917	2	72.0	.495	35.64		1917	6	72.0	.700	50.42
Total:						Total:					
3 plants.....	1915	7	64.4	.384	24.83	8 plants.....	1915	17	68.0	.568	38.52
	1917	7	61.7	.760	45.24		1917	18	64.0	.784	48.77

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FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, IN EACH DISTRICT, 1915 AND 1917—Continued.

BESSEMER CONVERTERS—Continued.

[The figures for each group of years are for identical plants.]

Occupation, district, and number of plants.	Year.	Number of em- ploy- ees.	Average full- time hours per week.	Average rate of wages per hour.	Average full- time weekly earnings.	Occupation, district, and number of plants.	Year.	Number of em- ploy- ees.	Average full- time hours per week.	Average rate of wages per hour.	Average full- time weekly earnings.
<i>Regulators, first.</i>						<i>Bottom makers.</i>					
Pittsburgh: 5 plants.....	1915	11	67.3	\$0.311	\$21.43	Pittsburgh: 5 plants.....	1915	10	74.5	\$0.275	\$20.16
	1917	11	64.0	.665	43.05		1917	10	72.0	.566	40.75
Great Lakes and Middle West: 3 plants.....	1915	7	72.4	.374	27.11	Great Lakes and Middle West: 3 plants.....	1915	5	72.0	.348	25.08
	1917	6	72.0	.568	40.87		1917	6	72.0	.417	30.02
Total: 8 plants.....	1915	18	69.3	.336	23.64	Total: 8 plants.....	1915	15	73.7	.299	21.80
	1917	17	66.8	.630	42.28		1917	16	72.0	.510	36.73
<i>Regulators, second.</i>						<i>Bottom makers' helpers.</i>					
Pittsburgh: 5 plants.....	1915	11	65.4	.285	19.11	Pittsburgh: 5 plants.....	1915	18	73.4	.217	15.81
	1917	11	64.0	.604	39.11		1917	20	72.0	.397	28.55
Great Lakes and Middle West: 3 plants.....	1915	8	72.4	.328	23.76	Great Lakes and Middle West: 3 plants.....	1915	8	72.0	.261	18.76
	1917	8	72.0	.395	28.44		1917	10	72.0	.338	24.31
Total: 8 plants.....	1915	19	68.3	.303	21.06	Total: 8 plants.....	1915	26	73.0	.230	16.71
	1917	19	67.4	.516	34.62		1917	30	72.0	.377	27.13
<i>Vesselmen.</i>						<i>Ladle liners.</i>					
Pittsburgh: 5 plants.....	1915	14	53.5	.547	29.51	Pittsburgh: 5 plants.....	1915	10	72.1	.292	21.03
	1917	14	50.3	1.041	51.22		1917	10	72.0	.589	42.42
Great Lakes and Middle West: 3 plants.....	1915	7	62.1	.554	34.18	Great Lakes and Middle West: 3 plants.....	1915	8	61.9	.419	26.06
	1917	16	72.0	.765	55.11		1917	5	69.6	.570	39.51
Total: 8 plants.....	1915	21	56.4	.550	31.07	Total: 8 plants.....	1915	18	67.6	.348	23.26
	1917	30	61.9	.894	53.29		1917	15	71.2	.583	41.45
<i>Vesselmen's helpers.</i>						<i>Ladle liners' helpers.</i>					
Pittsburgh: 5 plants.....	1915	25	53.1	.374	19.64	Pittsburgh: 5 plants.....	1915	18	71.8	.217	15.69
	1917	31	49.5	.731	30.46		1917	18	72.0	.398	28.65
Great Lakes and Middle West: 3 plants.....	1915	17	59.8	.382	23.05	Great Lakes and Middle West: 3 plants.....	1915	10	63.9	.259	15.80
	1917	14	72.0	.483	34.78		1917	16	70.5	.329	23.08
Total: 8 plants.....	1915	42	55.8	.377	21.02	Total: 8 plants.....	1915	28	69.0	.232	15.66
	1917	45	56.5	.654	35.94		1917	34	71.3	.365	26.03
<i>Cinder pitmen.</i>						<i>Stopper makers.</i>					
Pittsburgh: 3 plants.....	1915	20	72.3	.219	15.82	Pittsburgh: 5 plants.....	1915	5	67.2	.259	16.98
	1917	42	72.0	.321	23.12		1917	6	65.0	.434	27.95
Great Lakes and Middle West: 2 plants.....	1915	6	72.0	.238	17.14	Great Lakes and Middle West: 3 plants.....	1915	3	72.0	.307	22.10
	1917	20	72.0	.333	23.99		1917	4	72.0	.432	31.09
Total: 5 plants.....	1915	26	72.2	.223	16.13	Total: 8 plants.....	1915	8	69.0	.277	18.90
	1917	62	72.0	.325	23.40		1917	10	67.8	.433	29.15

FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, IN EACH DISTRICT, 1915 AND 1917—Continued.

BESSEMER CONVERTERS—Concluded.

[The figures for each group of years are for identical plants.]

Occupation, district, and number of plants.	Year.	Num- ber of em- ploy- ees.	Ay- erage full- time hours per week.	Aver- age rate of wages per hour.	Aver- age full- time weekly earn- ings.	Occupation, district, and number of plants.	Year.	Num- ber of em- ploy- ees.	Ay- erage full- time hours per week.	Aver- age rate of wages per hour.	Aver- age full- time weekly earn- ings.
<i>Stopper setters.</i>						<i>Mold cappers— Concluded.</i>					
Pittsburgh: 5 plants.....	1915	24	48.0	\$0.403	\$19.34	Great Lakes and Middle West: 1 plant.....	1915	6	72.0	\$0.377	\$27.11
	1917	24	46.7	.851	40.04		1917	6	72.0	.444	31.97
Great Lakes and Middle West: 3 plants.....	1915	7	62.1	.498	30.42	Total: 5 plants.....	1915	17	59.4	.338	19.93
	1917	16	54.0	.761	40.01		1917	29	54.6	.631	33.01
Total: 8 plants.....	1915	31	51.2	.424	21.84	<i>Ingot strippers.</i>					
	1917	40	49.6	.815	40.03	Pittsburgh: 5 plants.....	1915	13	69.2	.320	21.44
<i>Steel pourers.</i>							1917	23	67.2	.514	33.02
Pittsburgh: 5 plants.....	1915	15	48.1	.508	24.44	Great Lakes and Middle West: 3 plants.....	1915	8	72.4	.294	21.23
	1917	15	46.3	.982	46.41		1917	10	72.0	.399	28.70
Great Lakes and Middle West: 3 plants.....	1915	9	64.3	.512	33.11	Total: 8 plants.....	1915	21	70.4	.310	21.35
	1917	12	60.0	.682	40.13		1917	33	68.7	.479	31.71
Total: 8 plants.....	1915	24	54.2	.510	27.69	<i>Laborers.</i>					
	1917	27	52.7	.849	43.62	Pittsburgh: 5 plants.....	1915	207	72.2	.190	13.73
<i>Mold cappers.</i>							1917	427	73.8	.299	22.07
Pittsburgh: 4 plants.....	1915	11	52.5	.317	16.02	Great Lakes and Middle West: 3 plants.....	1915	44	71.3	.191	13.61
	1917	23	50.1	.680	33.28		1917	66	70.5	.297	20.93
						Total: 8 plants.....	1915	251	72.0	.190	13.71
							1917	493	73.4	.298	21.92

OPEN-HEARTH FURNACES.

<i>Stockers.</i>						<i>Stock crane men— Concluded.</i>					
Eastern: 2 plants.....	1915	26	81.7	\$0.178	\$14.52	Great Lakes and Middle West: 4 plants.....	1915	26	76.6	\$0.280	\$21.83
	1917	40	80.4	.284	22.78		1917	30	74.4	.351	26.04
Pittsburgh: 3 plants.....	1915	42	76.4	.211	16.19	Southern: 2 plants.....	1915	4	81.0	.214	17.25
	1917	46	80.5	.320	25.78		1917	6	80.0	.275	21.99
Great Lakes and Middle West: 5 plants.....	1915	92	77.0	.201	15.43	Total: 11 plants....	1915	50	77.7	.254	19.89
	1917	114	74.3	.317	23.56		1917	64	77.4	.338	26.11
Southern: 3 plants.....	1915	23	82.4	.161	13.29	<i>Charging-machine operators.</i>					
	1917	43	79.7	.226	18.30	Eastern: 2 plants.....	1915	6	82.0	.254	20.72
Total: 13 plants....	1915	183	78.2	.195	15.21		1917	10	80.4	.386	30.81
	1917	243	77.4	.296	22.92	Pittsburgh: 3 plants.....	1915	14	74.6	.334	24.94
<i>Stock crane men.</i>							1917	16	78.0	.492	38.57
Eastern: 2 plants.....	1915	8	81.0	.193	15.64	Great Lakes and Middle West: 5 plants.....	1915	22	76.4	.418	32.00
	1917	14	79.7	.293	23.31		1917	28	74.6	.474	35.34
Pittsburgh: 3 plants.....	1915	12	76.9	.251	19.41						
	1917	14	80.4	.381	30.84						

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FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, IN EACH DISTRICT, 1915 AND 1917—Continued.

OPEN-HEARTH FURNACES—Continued.

[The figures for each group of years are for identical plants.]

Occupation, district, and number of plants.	Year.	Num- ber of em- ploy- ees.	Ave- rage full- time hours per week.	Aver- age rate of wages per hour.	Aver- age full- time weekly earn- ings.	Occupation, district, and number of plants.	Year.	Num- ber of em- ploy- ees.	Ave- rage full- time hours per week.	Aver- age rate of wages per hour.	Aver- age full- time weekly earn- ings.
<i>Charging-machine operators—Concld.</i>						<i>Stopper setters.</i>					
Southern: 3 plants.....	1915	8	82.5	\$0.290	\$23.87	Pittsburgh: 2 plants.....	1915	8	72.0	\$0.334	\$24.67
	1917	10	79.2	.485	38.34		1917	8	73.5	.423	31.00
Total: 13 plants....	1915	50	77.5	.354	27.37	Great Lakes and Middle West: 4 plants.....	1915	10	76.8	.286	21.85
	1917	64	77.1	.467	35.91		1917	24	75.0	.408	30.27
<i>Melters' helpers, first.</i>						Southern: 2 plants.....	1915	4	81.0	.220	17.78
Eastern: 2 plants.....	1915	20	84.0	.322	27.01		1917	4	81.0	.432	34.52
	1917	30	84.0	.461	38.72	Total: 8 plants.....	1915	22	75.7	.291	21.91
Pittsburgh: 3 plants.....	1915	68	77.4	.463	35.84		1917	36	75.3	.414	30.90
	1917	76	75.2	.593	44.37	<i>Steel pourers.</i>					
Great Lakes and Middle West: 5 plants.....	1915	126	69.7	.492	34.36	Eastern: 1 plant.....	1915	2	78.0	.365	28.47
	1917	130	74.2	.612	45.16		1917	4	78.0	.467	35.43
Southern: 3 plants.....	1915	26	82.6	.420	34.56	Pittsburgh: 3 plants.....	1915	12	75.1	.361	27.48
	1917	36	80.0	.580	46.14		1917	12	77.0	.530	41.87
Total: 13 plants....	1915	240	74.5	.462	34.20	Great Lakes and Middle West: 5 plants.....	1915	16	75.0	.384	28.76
	1917	272	76.3	.586	44.36		1917	24	74.0	.435	31.89
<i>Melters' helpers, second.</i>						Southern: 3 plants.....	1915	10	75.6	.380	28.65
Eastern: 2 plants.....	1915	20	81.0	.230	18.59		1917	8	79.5	.465	36.93
	1917	30	80.4	.324	25.96	Total: 12 plants....	1915	40	75.3	.375	28.34
Pittsburgh: 3 plants.....	1915	68	73.8	.324	23.88		1917	48	76.0	.466	35.60
	1917	76	75.2	.424	31.76	<i>Mold cappers.</i>					
Great Lakes and Middle West: 5 plants.....	1915	124	69.7	.313	21.52	Eastern: 1 plant.....	1915	4	84.0	.190	15.96
	1917	130	74.2	.419	30.88		1917	2	84.0	.280	23.52
Southern: 3 plants.....	1915	26	82.6	.234	19.35	Pittsburgh: 3 plants.....	1915	18	76.1	.251	19.08
	1917	36	80.0	.325	25.93		1917	20	79.8	.389	31.40
Total: 13 plants....	1915	238	73.2	.301	21.71	Great Lakes and Middle West: 2 plants.....	1915	16	73.5	.295	21.57
	1917	272	75.9	.397	29.93		1917	16	72.0	.342	24.68
<i>Melters' helpers, third.</i>						Total: 6 plants.....	1915	38	75.8	.263	19.80
Eastern: 1 plant.....	1915	10	78.0	.182	14.20		1917	38	76.7	.364	28.16
	1917	18	78.0	.300	23.40	<i>Ladle cranemen.</i>					
Pittsburgh: 3 plants.....	1915	72	75.7	.245	18.50	Eastern: 2 plants.....	1915	6	82.0	.260	21.98
	1917	76	76.7	.350	26.77		1917	10	80.4	.396	31.65
Great Lakes and Middle West: 4 plants.....	1915	116	81.6	.207	16.84	Pittsburgh: 3 plants.....	1915	18	71.1	.342	25.51
	1917	138	77.2	.333	25.59		1917	20	76.8	.489	37.91
Southern: 3 plants.....	1915	49	78.6	.175	13.89	Great Lakes and Middle West: 5 plants.....	1915	27	76.0	.399	30.36
	1917	36	80.0	.272	21.72		1917	38	73.9	.464	34.31
Total: 11 plants....	1915	247	79.1	.211	16.63	Southern: 3 plants.....	1915	10	75.6	.325	24.42
	1917	268	77.5	.328	25.26		1917	14	79.7	.490	38.84
						Total: 13 plants....	1915	61	76.0	.357	27.13
							1917	82	76.4	.466	35.64

FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, IN EACH DISTRICT, 1915 AND 1917—Continued.

OPEN-HEARTH FURNACES—Concluded.

[The figures for each group of years are for identical plants.]

Occupation, district, and number of plants.	Year.	Num- ber of em- ploy- ees.	Ave- rage full- time hours per week.	Aver- age rate of wages per hour.	Aver- age full- time weekly earn- ings.	Occupation, district, and number of plants.	Year.	Num- ber of em- ploy- ees.	Ave- rage full- time hours per week.	Aver- age rate of wages per hour.	Aver- age full- time weekly earn- ings.
<i>Ingot strippers.</i>						<i>Laborers.</i>					
Eastern:						Eastern:					
2 plants.....	1915	8	78.8	\$0.226	\$175.73	2 plants.....	1915	10	77.7	\$0.151	\$11.78
	1917	6	82.0	.321	26.24		1917	135	68.4	.287	19.44
Pittsburgh:						Pittsburgh:					
3 plants.....	1915	9	67.4	.386	25.38	3 plants.....	1915	146	72.8	.198	14.45
	1917	13	59.1	.563	32.15		1917	211	78.2	.300	23.46
Great Lakes and Middle West:						Great Lakes and Middle West:					
5 plants.....	1915	11	77.5	.312	24.07	5 plants.....	1915	221	72.0	.192	13.81
	1917	14	73.7	.400	29.69		1917	267	75.6	.299	22.60
Southern:						Southern:					
3 plants.....	1915	6	78.0	.258	19.87	3 plants.....	1915	93	63.4	.158	9.99
	1917	6	79.5	.446	35.35		1917	40	66.9	.221	14.52
Total:						Total:					
13 plants.....	1915	34	75.2	.302	22.18	13 plants.....	1915	470	70.6	.187	13.21
	1917	39	70.9	.449	30.85		1917	653	74.4	.292	21.73

BLOOMING MILLS.

<i>Pit cranemen.</i>						<i>Heaters' helpers— Concluded.</i>					
Eastern:						Southern:					
1 plant.....	1915	4	72.0	\$0.204	\$14.67	1 plant.....	1915	2	72.0	\$0.492	\$35.42
	1917	4	78.0	.443	34.55		1917	4	78.0	.816	63.65
Pittsburgh:						Total:					
5 plants.....	1915	22	66.0	.384	25.18	3 plants.....	1915	7	75.7	.369	27.72
	1917	34	59.8	.607	35.06		1917	15	59.2	.611	37.06
Great Lakes and Middle West:						<i>Bottom makers.</i>					
4 plants.....	1915	15	75.2	.312	23.33	Eastern:					
	1917	25	69.1	.464	31.55	1 plant.....	1915	4	72.0	.208	14.98
Southern:							1917	6	78.0	.370	28.86
2 plants.....	1915	6	72.0	.370	26.69	Pittsburgh:					
	1917	8	76.5	.599	45.97	4 plants.....	1915	12	62.0	.429	26.64
Total:							1917	14	62.9	.624	39.22
12 plants.....	1915	47	70.2	.344	23.89	Great Lakes and Middle West:					
	1917	71	66.0	.546	35.02	4 plants.....	1915	9	74.6	.276	20.40
<i>Heaters.</i>							1917	12	72.0	.417	30.02
Eastern:						Southern:					
1 plant.....	1915	2	72.0	.375	27.00	2 plants.....	1915	6	72.0	.290	20.86
	1917	2	78.0	.584	45.55		1917	6	80.0	.487	38.61
Pittsburgh:						Total:					
5 plants.....	1915	15	70.0	.592	41.35	11 plants.....	1915	31	68.9	.329	22.20
	1917	25	58.2	.790	46.73		1917	38	70.8	.497	34.59
Great Lakes and Middle West:						<i>Bottom makers' helpers.</i>					
4 plants.....	1915	12	75.0	.490	36.47	Pittsburgh:					
	1917	16	72.0	.689	49.62	3 plants.....	1915	14	64.4	.317	20.11
Southern:							1917	16	64.0	.453	28.24
2 plants.....	1915	4	84.0	.567	47.61	Great Lakes and Middle West:					
	1917	4	81.0	.902	72.37	4 plants.....	1915	10	74.3	.249	16.18
Total:							1917	16	72.0	.352	25.32
12 plants.....	1915	33	73.7	.539	39.46	Southern:					
	1917	47	65.7	.756	49.85	2 plants.....	1915	6	72.0	.205	14.78
<i>Heaters' helpers.</i>							1917	12	80.0	.336	26.65
Pittsburgh:						Total:					
1 plant.....	1915	4	75.5	.325	24.50	9 plants.....	1915	30	69.2	.262	17.74
	1917	9	48.0	.530	25.44		1917	44	71.3	.384	26.74
Great Lakes and Middle West:											
1 plant.....	1915	1	84.0	.300	25.20						
	1917	2	72.0	.565	40.68						

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FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, IN EACH DISTRICT, 1915 AND 1917—Continued.

BLOOMING MILLS—Concluded.

[The figures for each group of years are for identical plants.]

Occupation, district, and number of plants.	Year.	Number of em- ploy- ees.	Average full- time hours per week.	Average rate of wages per hour.	Average full- time weekly earn- ings.	Occupation, district, and number of plants.	Year.	Number of em- ploy- ees.	Average full- time hours per week.	Average rate of wages per hour.	Average full- time weekly earn- ings.
<i>Roll engineers.</i>						<i>Table men— Concluded.</i>					
Eastern: 1 plant.....	1915	2	72.0	\$0.250	\$18.00	Southern: 2 plants.....	1915	4	72.0	\$0.223	\$16.06
	1917	4	78.0	.373	29.09		1917	5	74.4	.310	23.41
Pittsburgh: 5 plants.....	1915	13	56.8	.545	29.59	Total: 4 plants.....	1915	9	64.7	.291	18.28
	1917	19	54.2	.797	41.54		1917	13	63.1	.414	25.51
Great Lakes and Middle West: 4 plants.....	1915	7	75.4	.406	30.35	<i>Shearmen.</i>					
	1917	11	72.0	.560	40.33	Eastern: 1 plant.....	1915	2	72.0	.250	18.00
Southern: 2 plants.....	1915	3	72.0	.455	32.73		1917	2	78.0	.410	31.98
	1917	3	76.0	.761	58.41	Pittsburgh: 5 plants.....	1915	15	58.4	.408	23.10
Total: 12 plants....	1915	25	65.1	.472	29.26		1917	15	58.1	.592	33.33
	1917	37	63.8	.678	41.20	Great Lakes and Middle West: 4 plants.....	1915	7	72.0	.333	23.97
<i>Rollers.</i>							1917	10	72.0	.448	32.27
Eastern: 1 plant.....	1915	2	72.0	.385	27.72	Southern: 2 plants.....	1915	3	72.0	.332	23.88
	1917	2	78.0	.620	48.36		1917	3	76.0	.503	38.55
Pittsburgh: 5 plants.....	1915	13	55.9	.749	40.81	Total: 12 plants....	1915	27	64.5	.368	23.03
	1917	19	53.5	.980	51.38		1917	30	65.9	.523	33.41
Great Lakes and Middle West: 4 plants.....	1915	7	72.0	.629	45.28	<i>Shearmen's helpers.</i>					
	1917	10	72.0	.780	56.17	Pittsburgh: 5 plants.....	1915	24	60.9	.309	18.54
Southern: 2 plants.....	1915	3	72.0	.707	50.90		1917	16	63.5	.462	29.10
	1917	3	76.0	1.117	85.76	Great Lakes and Middle West: 3 plants.....	1915	14	72.9	.239	17.39
Total: 12 plants....	1915	25	63.6	.681	42.22		1917	8	72.0	.384	27.67
	1917	34	62.4	.912	55.64	Southern: 2 plants.....	1915	7	72.0	.195	14.04
<i>Manipulators.</i>							1917	5	76.8	.296	22.72
Eastern: 1 plant.....	1915	2	72.0	.229	16.49	Total: 10 plants....	1915	45	66.4	.272	17.48
	1917	2	78.0	.412	32.14		1917	29	68.1	.412	27.60
Pittsburgh: 5 plants.....	1915	13	55.9	.491	26.38	<i>Laborers.</i>					
	1917	19	53.5	.752	38.62	Eastern: 1 plant.....	1915	4	72.0	.160	11.52
Great Lakes and Middle West: 4 plants.....	1915	9	72.0	.328	23.66		1917	2	84.0	.250	21.00
	1917	10	72.0	.464	33.38	Pittsburgh: 4 plants.....	1915	79	73.7	.187	13.92
Southern: 2 plants.....	1915	3	72.0	.417	30.05		1917	244	75.3	.300	22.59
	1917	3	76.0	.659	50.51	Great Lakes and Middle West: 4 plants.....	1915	39	72.4	.190	13.75
Total: 12 plants....	1915	27	64.2	.409	25.15		1917	88	69.1	.295	20.37
	1917	34	62.4	.639	37.75	Southern: 2 plants.....	1915	15	72.0	.136	9.77
<i>Tablemen.</i>							1917	54	77.4	.217	16.87
Pittsburgh: 2 plants.....	1915	5	58.9	.345	20.06	Total: 11 plants....	1915	137	73.1	.182	13.34
	1917	8	56.0	.479	26.82		1917	388	74.3	.287	21.28

FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, IN EACH DISTRICT, 1915 AND 1917—Continued.

PLATE MILLS.

[The figures for each group of years are for identical plants.]

Occupation, district, and number of plants.	Year.	Num- ber of em- ploy- ees.	Ave- rage full- time hours per week.	Ave- rage rate of wages per hour.	Ave- rage full- time weekly earn- ings.	Occupation, district, and number of plants.	Year.	Num- ber of em- ploy- ees.	Ave- rage full- time hours per week.	Ave- rage rate of wages per hour.	Ave- rage full- time weekly earn- ings.
<i>Charging-crane and charging- machine opera- tors.</i>						<i>Rollers.</i>					
Eastern:						Eastern:					
1 plant.....	1915	4	65.3	\$0.188	\$12.27	1 plant.....	1915	4	65.3	\$0.318	\$20.77
	1917	4	66.0	.351	23.13		1917	4	66.0	.586	38.64
Pittsburgh:						Pittsburgh:					
3 plants.....	1915	16	72.5	.358	25.96	3 plants.....	1915	8	70.4	.824	57.96
	1917	16	72.0	.490	35.28		1917	8	72.0	1.105	79.58
Great Lakes and Middle West:						Great Lakes and Middle West:					
3 plants.....	1915	9	70.0	.333	23.10	3 plants.....	1915	5	68.5	.842	56.85
	1917	10	69.7	.517	35.85		1917	6	68.2	1.168	79.09
Total:						Total:					
7 plants.....	1915	29	70.7	.326	23.18	7 plants.....	1915	17	68.6	.710	48.88
	1917	30	70.4	.480	33.85		1917	18	69.4	1.011	70.32
<i>Heaters.</i>						<i>Screwmen.</i>					
Eastern:						Eastern:					
1 plant.....	1915	4	65.3	.305	19.92	1 plant.....	1915	4	65.3	.246	16.02
	1917	4	66.0	.566	37.36		1917	4	66.0	.451	29.77
Pittsburgh:						Pittsburgh:					
3 plants.....	1915	16	76.9	.627	48.15	3 plants.....	1915	8	70.4	.591	41.72
	1917	16	72.0	.851	61.29		1917	8	72.0	.795	57.26
Great Lakes and Middle West:						Great Lakes and Middle West:					
3 plants.....	1915	7	69.5	.557	38.21	3 plants.....	1915	6	69.1	.529	36.12
	1917	10	69.7	.726	50.04		1917	10	69.7	.728	50.42
Total:						Total:					
7 plants.....	1915	27	73.2	.561	41.39	7 plants.....	1915	18	68.8	.494	34.14
	1917	30	70.4	.771	54.35		1917	22	69.9	.702	49.15
<i>Heaters' helpers.</i>						<i>Table operators.</i>					
Eastern:						Eastern:					
1 plant.....	1915	22	65.3	.148	9.65	1 plant.....	1915	4	65.3	.188	12.27
	1917	12	66.0	.333	21.98		1917	4	66.0	.351	23.13
Pittsburgh:						Pittsburgh:					
3 plants.....	1915	18	71.3	.309	22.23	3 plants.....	1915	8	68.8	.375	26.16
	1917	12	72.0	.556	40.03		1917	6	72.0	.538	38.74
Great Lakes and Middle West:						Great Lakes and Middle West:					
2 plants.....	1915	10	68.3	.372	25.10	2 plants.....	1915	6	66.2	.374	24.55
	1917	12	64.3	.517	33.01		1917	10	67.4	.558	37.55
Total:						Total:					
6 plants.....	1915	50	68.0	.250	17.27	6 plants.....	1915	18	67.1	.333	22.53
	1917	36	67.4	.469	31.67		1917	20	68.5	.510	35.02
<i>Roll engineers.</i>						<i>Hook men.</i>					
Eastern:						Eastern:					
1 plant.....	1915	6	65.3	.188	12.30	1 plant.....	1915	8	65.3	.149	9.56
	1917	4	66.0	.303	20.00		1917	8	66.0	.283	18.65
Pittsburgh:						Pittsburgh:					
3 plants.....	1915	8	71.8	.357	25.46	3 plants.....	1915	16	70.4	.361	25.64
	1917	8	75.0	.515	38.43		1917	19	72.0	.498	37.87
Great Lakes and Middle West:						Great Lakes and Middle West:					
3 plants.....	1915	5	72.0	.316	22.77	2 plants.....	1915	12	67.6	.332	22.30
	1917	8	69.1	.444	30.64		1917	22	68.9	.528	36.30
Total:						Total:					
7 plants.....	1915	19	69.8	.293	20.60	6 plants.....	1915	36	68.3	.304	20.95
	1917	20	70.9	.444	31.63		1917	49	69.6	.476	33.25

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FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, IN EACH DISTRICT, 1915 AND 1917—Continued.

PLATE MILLS—Concluded.

[The figures for each group of years are for identical plants.]

Occupation, district, and number of plants.	Year.	Num- ber of em- ploy- ees.	Ave- rage full- time hours per week.	Aver- age rate of wages per hour.	Aver- age full- time weekly earn- ings.	Occupation, district, and number of plants.	Year.	Num- ber of em- ploy- ees.	Ave- rage full- time hours per week.	Aver- age rate of wages per hour.	Aver- age full- time weekly earn- ings.
<i>Roll hands— other.</i>						<i>Shearmen's help- ers.</i>					
Eastern:						Eastern:					
1 plant.....	1915	2	65.3	\$0.139	\$9.07	1 plant.....	1915	34	64.3	\$0.131	\$8.42
	1917	4	66.0	.281	18.55		1917	24	66.0	.250	16.50
Pittsburgh:						Pittsburgh:					
3 plants.....	1915	8	70.4	.289	20.46	3 plants.....	1915	126	70.6	.289	20.52
	1917	10	72.0	.429	30.92		1917	116	72.0	.414	29.78
Great Lakes and Middle West:						Great Lakes and Middle West:					
1 plant.....	1915	2	63.3	.340	21.47	3 plants.....	1915	92	66.9	.250	16.57
	1917	2	60.5	.500	30.25		1917	108	66.4	.418	27.72
Total:						Total:					
5 plants.....	1915	12	68.3	.273	18.73	7 plants.....	1915	252	68.4	.254	17.44
	1917	16	69.1	.401	27.74		1917	248	69.0	.400	27.60
<i>Shearmen.</i>						<i>Laborers.</i>					
Eastern:						Eastern:					
1 plant.....	1915	5	64.2	.232	14.86	1 plant.....	1915	39	59.4	.147	8.70
	1917	4	66.0	.407	26.83		1917	11	57.3	.250	14.32
Pittsburgh:						Pittsburgh:					
3 plants.....	1915	20	69.5	.557	38.73	2 plants.....	1915	51	71.3	.188	13.37
	1917	22	72.0	.728	52.42		1917	126	70.6	.300	21.17
Great Lakes and Middle West:						Great Lakes and Middle West:					
3 plants.....	1915	17	66.9	.345	23.04	2 plants.....	1915	12	65.4	.187	12.14
	1917	16	67.5	.571	38.64		1917	59	72.0	.289	20.79
Total:						Total:					
7 plants.....	1915	42	67.8	.432	29.54	5 plants.....	1915	102	66.0	.172	11.44
	1917	42	69.7	.638	44.74		1917	196	70.3	.294	20.67

SHEET MILLS.

<i>Pair heaters.</i>						<i>Roughers.</i>					
Pittsburgh:						Pittsburgh:					
4 plants.....	1915	105	42.7	\$0.513	\$21.87	4 plants.....	1915	105	42.7	\$0.624	\$26.64
	1917	138	44.3	1.103	49.06		1917	138	44.3	1.361	60.53
Great Lakes and Middle West:						Great Lakes and Middle West:					
4 plants.....	1915	111	43.2	.486	21.00	4 plants.....	1915	111	43.2	.582	25.13
	1917	138	43.0	.973	41.91		1917	138	43.0	1.210	52.01
Total:						Total:					
8 plants.....	1915	216	43.0	.499	21.43	8 plants.....	1915	216	43.0	.602	25.87
	1917	276	43.7	1.038	45.48		1917	276	43.7	1.285	56.27
<i>Rollers.</i>						<i>Catchers.</i>					
Pittsburgh:						Pittsburgh:					
4 plants.....	1915	105	42.7	1.191	50.80	4 plants.....	1915	105	42.7	.602	25.67
	1917	138	44.3	2.651	117.92		1917	138	44.3	1.301	57.82
Great Lakes and Middle West:						Great Lakes and Middle West:					
4 plants.....	1915	111	43.2	1.265	54.63	4 plants.....	1915	111	43.2	.581	25.13
	1917	138	43.0	2.530	108.96		1917	138	43.0	1.210	52.01
Total:						Total:					
8 plants.....	1915	216	43.0	1.229	52.74	8 plants.....	1915	216	43.0	.591	25.39
	1917	276	43.7	2.591	113.47		1917	276	43.7	1.256	54.92

FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, IN EACH DISTRICT, 1915 AND 1917—Concluded.

SHEET MILLS—Concluded.

[The figures for each group of years are for identical plants.]

Occupation, district, and number of plants.	Year.	Num- ber of em- ploy- ees.	Ave- rage full- time hours per week.	Ave- rage rate of wages per hour.	Ave- rage full- time weekly earn- ings.	Occupation, district, and number of plants.	Year.	Num- ber of em- ploy- ees.	Ave- rage full- time hours per week.	Ave- rage rate of wages per hour.	Ave- rage full- time weekly earn- ings.
<i>Matchers.</i>						<i>Shearmen.</i>					
Pittsburgh: 4 plants.....	1915	105	42.7	\$0.454	\$19.36	Pittsburgh: 4 plants.....	1915	56	42.7	\$0.829	\$35.37
	1917	138	44.3	.975	43.36		1917	83	44.1	1.449	64.32
Great Lakes and Middle West: 4 plants.....	1915	111	43.2	.453	19.53	Great Lakes and Middle West: 3 plants.....	1915	34	43.6	.796	34.60
	1917	138	43.0	.916	39.42		1917	66	42.6	1.336	56.59
Total: 8 plants.....	1915	216	43.0	.454	19.47	Total: 7 plants.....	1915	90	43.0	.816	35.03
	1917	276	43.7	.946	41.39		1917	149	43.5	1.399	60.90
<i>Doublers.</i>						<i>Shearmen's help- ers.</i>					
Pittsburgh: 4 plants.....	1915	105	42.7	.447	19.07	Pittsburgh: 3 plants.....	1915	44	42.7	.244	10.44
	1917	138	44.3	.958	42.40		1917	54	43.8	.546	23.98
Great Lakes and Middle West: 4 plants.....	1915	111	43.2	.428	18.49	Great Lakes and Middle West: 3 plants.....	1915	50	43.3	.237	10.33
	1917	138	43.0	.855	36.75		1917	66	42.7	.523	22.30
Total: 8 plants.....	1915	216	43.0	.438	18.77	Total: 6 plants.....	1915	94	43.0	.241	10.38
	1917	276	43.7	.906	39.57		1917	120	43.2	.533	23.06
<i>Sheet heaters.</i>						<i>Openers, male.</i>					
Pittsburgh: 4 plants.....	1915	105	42.7	.880	37.57	Pittsburgh: 3 plants.....	1915	80	42.7	.263	11.25
	1917	138	44.3	1.970	87.67		1917	91	43.9	.649	27.47
Great Lakes and Middle West: 4 plants.....	1915	101	43.3	.883	38.21	Great Lakes and Middle West: 3 plants.....	1915	51	43.3	.274	11.90
	1917	138	43.0	1.788	77.05		1917	84	42.7	.676	28.85
Total: 8 plants.....	1915	206	43.0	.882	37.88	Total: 6 plants.....	1915	131	42.9	.268	11.50
	1917	276	43.7	1.879	82.36		1917	175	43.3	.662	28.70
<i>Sheet heaters' helpers.</i>						<i>Laborers.</i>					
Pittsburgh: 3 plants.....	1915	66	42.7	.443	18.91	Pittsburgh: 4 plants.....	1915	171	66.2	.191	12.59
	1917	96	43.9	.872	38.47		1917	199	63.2	.321	20.36
Great Lakes and Middle West: 3 plants.....	1915	56	43.8	.384	16.74	Great Lakes and Middle West: 4 plants.....	1915	107	64.9	.180	11.59
	1917	120	42.7	.848	36.19		1917	457	61.2	.335	20.50
Total: 6 plants.....	1915	122	43.2	.416	17.91	Total: 8 plants.....	1915	278	65.7	.186	12.21
	1917	216	43.2	.859	37.21		1917	656	61.8	.331	20.46

REPORT OF PRESIDENT'S MEDIATION COMMISSION.

In the December, 1917, issue of the MONTHLY REVIEW (pp. 53-57) mention was made of the appointment by the President of a commission to visit the mountain region and the Pacific coast for the purpose of learning the causes of discontent in that section and of "lending sympathetic counsel and aid * * * in the development of a better understanding between laborers and employers and also themselves to deal with employers and employees in a conciliatory spirit, seek to compose differences and allay misunderstanding, and in any way that may be open to them to show the active interest of the National Government in furthering arrangements just to both sides." It seems that the immediate anxiety was on account of the dangerous diminution of the copper supply available for ammunition, due partly to the strikes in Arizona, and the hampering of the War program both as to ships and aircraft because of disturbed labor conditions in the Pacific Northwest, so that primarily the objects of the commission were to work the copper mines of Arizona to their maximum output and to keep them open for the period of the War, and to bring to pass such a condition in the labor situation of the Pacific Northwest that the shipbuilding and aircraft programs of the Nation may proceed at the required pace and with efficiency so far as labor is an element. The work of the commission, however, was not confined to these two specific fields, for after it began its labors other difficulties arose which demanded its attention, namely, a threatened strike in the oil fields of southern California, a threatened and partly executed strike on the telephone lines of the Pacific States, and a threatened tie-up of the packing industry centering in Chicago but affecting the industries of the entire country. The article in the December REVIEW dealt particularly with the unsettled labor conditions and the achievements of the commission in bringing about adjustments in the Arizona copper fields. A subsequent article, in the January issue of the MONTHLY REVIEW (pp. 13-17), included the report of the commission condemning the deportation on July 12, 1917, of 1,186 men from Bisbee, in the Warren copper district of Arizona.

In abstract form the report of the commission submitted to the President under date of January 9, 1918, and made public on February 10, contains a statement of the labor disturbances in the copper fields, and a summary of the adjustments effected by the commission,

followed by a comprehensive outline of the efforts put forth by the commission in bringing about a settlement of the California oil fields dispute, the Pacific coast telephone dispute, and the packing industry dispute. The report also includes a brief statement of conditions disclosed to the commission leading to unrest in the lumber industry of the Pacific Northwest. Following these summary statements of the results of specific labor adjustments undertaken by the commission is an analysis, so far as revealed by the limited scope of the investigation, of the difficulties and tendencies making for industrial instability, and the report concludes with recommendations as to the direction that the labor policy of the United States should take, at least during the period of the War, and is signed by W. B. Wilson, Secretary of Labor, chairman; Ernest P. Marsh; Verner Z. Reed; Jackson L. Spangler; and John H. Walker.

DISPUTES IN ARIZONA COPPER DISTRICTS.

Fundamental causes of the labor disturbances in 1917 in the Arizona copper fields, where about 28 per cent of the total copper output of the United States is produced, were found by the commission to be (1) "the underlying labor conditions of the mining industry of the State, which were devoid of safeguards against strikes and in fact provocative of them," and (2) distant ownership of mines and the failure on the part of the resident managers "to understand and reach the mind and heart of labor because they have not the aptitude or the training or the time for wise dealing with the problems of industrial relationship. The managers are technical men, mining engineers of knowledge and skill. There is no responsible executive whose sole function it is to deal with labor problems."

The facts that the working force is migratory, constituting "economically an intolerable waste," that many nationalities (26 in one camp and 32 in another) are represented in each camp, and that "the movement toward Americanization, so fruitful in its results in different parts of the country, has hardly penetrated into these outposts of industry," have apparently contributed to the unsettled conditions which the commission found in the copper fields. Conditions varied somewhat in the four districts covered, but amidst all the diversities there were three basic claims, urged by the men and resisted by the companies, which are given in the report as follows:

(a) While not expressed in so many words, the dominant feeling of protest was that the industry was conducted upon an autocratic basis. The workers did not have representation in determining those conditions of their employment which vitally affected their lives as well as the company's output. Many complaints were, in fact, found by the commission to be unfounded, but there was no safeguard against injustice except the say so of one side to the controversy. In none of the mines was there direct dealing between companies and unions. In some mines grievance committees had been recently established, but they were distrusted by the workers as subject to

company control, and, in any event, were not effective, because the final determination of every issue was left with the company. In place of orderly processes of adjustment, workers were given the alternative of submission or strike.

(b) The men sought the power to secure industrial justice in matters of vital concern to them. The power they sought would in no way impinge on the correlative power which must reside in management. Only by a proper balance of adequate power on each side can just equilibrium in industry be attained. In the minds of the workers only the right to organize secured them an equality of bargaining power and protection against abuses. There was no demand for a closed shop. There was a demand for security against discrimination directed at union membership. The companies denied discrimination, but refused to put the denial to the reasonable test of disinterested adjustment.

(c) The men demanded the removal of certain existing grievances as to wages, hours, and working conditions, but the specific grievances were, on the whole, of relatively minor importance. The crux of the conflict was the insistence of the men that the right and the power to obtain just treatment were in themselves basic conditions of employment, and that they should not be compelled to depend for such just treatment on the benevolence or uncontrolled will of the employers.

The correction of these underlying conditions making for instability was the aim of the commission in its adjustments. Although four specific adjustments were made, the general principles incorporated in the agreements were as follows:

(a) An orderly and impartial process for the adjustment of all grievances inevitable in modern large-scale industry was substituted for the strike. In asking labor, for the period of the War, to forego its ultimate weapon, a compensatory means of redressing grievances had to be supplied. Therefore, there are established in each district United States administrators to decide all disputes where the parties themselves fail of agreement. The commission in effect applied the principle of trade agreements, making the duration of the War the time limit, and, through the mechanism of a United States administrator, provided for the means of determining any claims of breach of the agreement.

(b) Working conditions of industry should normally be determined by the parties themselves. Therefore channels of communication between the management and men were created through grievance committees free from all possible company influence. Through these representative contacts between management and men disputes find expeditious and informal settlement. Still more important, the contact engenders a spirit of mutual understanding and therefore of cooperation.

(c) The right of the men to organize was made effective by providing administrative enforcement for the prohibition against discrimination because of union affiliation.

(d) In view of the dislocation of the labor supply of the country it was important to husband the available man power. Therefore reemployment of the men on strike before employing newcomers was assured, excepting only those—few in number—who were guilty of seditious utterances, who had been proved inefficient, or who were members of any organization whose principles were opposed to belief in the obligation of contract. By casting the burden of reemployment of all the strikers upon the district instead of upon the individual company, the beginning was made toward recognizing the responsibility of the industry as an entirety for the solution of its problems.

The report says that administration under this settlement has proceeded in these Arizona districts for over two months and the results are encouraging.

CALIFORNIA OIL FIELDS DISPUTE.

In the oil fields of southern California, where the output is 8,000,000 barrels per month and the number of employees is approximately 18,000, a threatened strike in the fields of independent companies in the summer of 1917 and again in the following November, directed the attention of the commission to an adjustment of differences which concerned wages, hours, conditions of employment, and alleged discrimination against the men because of membership in the union which had been organized in April, 1917, and had grown to include between 9,000 and 10,000 men. The commission found that the major specific demands of the men, a very large proportion of whom are highly skilled, were for an 8-hour day and a minimum wage of \$4, it appearing that 5,000 employees of a certain company had been on an 8-hour basis since January 1, 1917. The commission succeeded in obtaining an 8-hour day for the employees of the independents, effective January 1, 1918, conditioned on the right of the Government to demand a longer working day should emergency require it, and in establishing the principle of the minimum wage of \$4 on an 8-hour basis, effective December 1, 1917. The companies further agreed not to discriminate against men because of membership in any union affiliated with the American Federation of Labor. In the oil fields, as in the copper districts, machinery for adjustment of disputes was essential, and provision was therefore made for Government inspectors to determine the Government's need, if any, for increase in the working hours. Administrators were named for all disputes which the parties themselves can not settle. The report says in conclusion:

The men thus secured betterment in hours and conditions of employment and the means of redress for future grievances. In effect the settlement operated as a trade agreement for the period of the War and thereby displaced the strike and the lockout. The Government is thus assured stability as to labor conditions in the oil production of California. Opportunities are afforded the men to become disciplined through responsible organization, with resulting increase in efficiency; and the contact between producers and men will make for the healthier relationships between them indispensable to peace and productivity in industry. The response to the Government's needs, once they were made clear to both operators and men, gives full hope for the growth of a cooperative spirit between them. The men showed every readiness to produce the much-needed oil; the operators, both independent and Standard Oil, placed all their resources without stint at the disposal of the Government.

PACIFIC COAST TELEPHONE DISPUTE.

The Pacific coast telephone dispute threatened to tie up the service in California, Oregon, Washington, Idaho, and Nevada, and in November, 1917, a strike actually became effective in Washington and Oregon. About 3,200 men who construct and keep up the plant and about 9,000 girl operators were involved in the dispute, which seemed to center about a demand on the part of the International

Brotherhood of Electrical Workers for recognition of the girls' union which had affiliated with them. "The men for the first time—being most favorably situated because of the demand for skilled electricians—made the recognition of the girls' union their controlling principle." The report states, however, that there were two other issues: A demand for an increase of wages and a demand for a closed shop, subsequently modified into a desire for a preferential shop. The men demanded a 25 per cent wage increase; the company offered a 12½ per cent increase. The closed-shop demand was used as a leverage in bargaining, but the preferential-shop idea was vigorously urged. These specific issues, it seems, were enveloped in an atmosphere of misunderstanding and suspicion, not only between the company and its employees but also between the northern and southern groups of employees. Moreover, a false issue of loyalty had been raised, particularly against the striking girls, which was vigorously repelled. Here, as the commission found was the case elsewhere, the attempt of parties on one side of an economic controversy to appropriate patriotism and stigmatize the other side with disloyalty served only to intensify the bitterness of the struggle and to weaken the force of unity in the country. What the commission was able to achieve in adjusting this dispute is set forth in the following excerpt from the report:

(a) The girls' locals were included in the trade agreement between the company and the brotherhood. In some other parts of the country the company had heretofore recognized the girls' union, and the plea that this made for inefficiency was the speculation of fear rather than the judgment of experience.

(b) Wage increases, obviously necessary, were provided for, leaving the extent of further increases to negotiation between the parties. In default of agreement, the issue was to be determined by an arbiter, to pass upon the complicated facts of a proper wage scale.

(c) The recognition of the girls' union, as well as the enforcement of all future grievances, was made effective by the establishment of impartial administrative machinery. United States administrators in the various districts were provided for the settlement of all issues which the parties themselves could not adjust.

(d) For the period of the War at least, in place of the resort to strike or lockout, there was thus established an effective peaceful process for the redress of grievances, secured by the authority of the United States Government.

(e) In effect there were involved a reversal of the labor policy of the company. New currents of cooperation were created. It takes some time, however, for such a change of policy to permeate through all the stages of an industrial hierarchy. Partly therefore, through this delayed adjustment to a new industrial régime on the part of local subordinate officials, partly by reason of obstructive suspicion of some of the radical labor leaders in the northern States, partly because of the limited facilities for labor administration on the part of the Government, considerable difficulty was experienced in the early days following the ratification of the commission's settlement. The commission was constantly appealed to. The quick exercise of administrative action by the commission and the new administrators, and a strict eye to the enforcement of the settlement in cooperation with the more conservative union leaders

and the higher officials of the company, succeeded in tiding over—by a process of flexible administration rather than adjudication—the obstructions and difficulties inevitable in such a situation. Before the commission left the coast signs of a new order of good relationship were already evident. Since then the representatives of the company and the brotherhoods have successfully negotiated a new wage scale without resort to arbitration.

UNREST IN THE LUMBER INDUSTRY OF THE PACIFIC NORTHWEST.

The lumber industry of the Pacific Northwest, employing about 70,000 men, suffered a breakdown of several months in the summer of 1917, "and is still in a state of seething unrest, woefully short of its productivity; for while the strike of 1917 was broken and the men went back beaten for the moment, the conflict was only postponed and not composed." The situation may be summed up in the following words of the report:

We are dealing with an industry still determined by pioneer conditions of life. Hardy contact with nature makes certain rigors of conditions inevitable, but the rigors of nature have been reinforced by the neglects of men. Social conditions have been allowed to grow up full of danger to the country. It is in these unhealthy social conditions that we find the explanations for the unrest long gathering force but now sharply brought to our attention by its disastrous effect upon war industries. The unlivable condition of many of the camps has long demanded attention. While large improvements in camp life have recently been made, many of the camps still require much betterment to make them fit human habitations. A number of employers have shown a most commendable understanding of the implications of operating camps unfit for men. Unfortunately, however, the old abuses were so long continued and so widespread, that even after physical conditions are bettered a sense of grievance remains. This discontent gradually translated itself into demands not merely for physical comforts but for certain spiritual satisfactions.

Partly the rough pioneer character of the industry, but largely the failure to create a healthy social environment, has resulted in the migratory, drifting character of workers. Ninety per cent of those in the camps are described by one of the wisest students of the problem, not too inaccurately, as "womanless, voteless, and jobless." The fact is that about 90 per cent of them are unmarried. Their work is most intermittent, the annual labor turnover reaching the extraordinary figure of over 600 per cent. There has been a failure to make of these camps communities. It is not to be wondered, then, that in too many of these workers the instinct of workmanship is impaired. They are—or, rather, have been made—disintegrating forces in society.

It was found that efforts had been made to rectify evils through the trade-union movement, but these seem to have failed because of the small headway trade-unions are able to make, due largely "to the bitter attitude of the operators toward any organization among their employees," an attitude which "has reaped for them an organization of destructive rather than constructive radicalism." The focusing point of the unrest was a demand for the 8-hour day, the lumbering industry being almost the only large industry on the coast in which the basic 8-hour day does not prevail. "Opposition to the 8-hour day is carried to the point of binding members of an employers' association on the Pacific coast by agreement to discriminate against

such mills as introduce the change." The efforts of the commission to establish an 8-hour day in the lumber industry were not entirely successful.

In the judgment of the commission the introduction of the basic 8-hour day in the Pacific Northwest lumber industry is indispensable as a measure of national need. It is essential in order to assure stability in the industry, efficiency of output, and to obtain an adequate labor supply in the face of better competitive conditions in neighboring industries. Negotiations between the commission and the operators' association on the coast had reached a point where the adoption of the 8-hour day seemed practically assured. Unfortunately, conferences between representatives of the Pacific coast lumbermen and officials in Washington, held contemporaneously with the session of the commission in Seattle, gave rise to advices from such representatives to their associates on the coast which led to a reversal of attitude and to insistence that the 8-hour day must go into operation for the entire country before the Northwest Pacific coast would yield. The principal and certain source of difficulty, therefore, remains. It can be and should be promptly removed by administrative action requiring the basic 8-hour day in all contracts for lumber entering into Government work.

Some means of contact between operators and employees as a body is likewise essential. If it is too abrupt a step in the evolutionary process of this industry to deal collectively with trade-unions, some method of representation of the workers collectively in determining the general conditions under which they work and for securing rectification of evils should be devised.

PACKING INDUSTRY DISPUTE.

Of very great importance in the prosecution of the War is the meat-packing industry centering in Chicago. Because of this fact the threatened strike in December, 1917, affecting upward of 100,000 men, directed the attention of the commission to an adjustment of the differences involved. In that industry, according to the report of the commission, the packers have long opposed the organization of their workingmen, and the union, which had been destroyed by the strike of 1903, had not been able, up to 1917, to rehabilitate itself. In 1917, however, effective organization again made itself felt, and by the end of the year from 25 to 50 per cent of the men were unionized. An effort was made to induce the packers to recognize the union, at least to the extent of meeting its representatives and talking matters over. This the packers refused to do. The specific grievances in the controversy, which threatened to result in a strike, were low wages and long hours. The men asked for an 8-hour day in place of a 10-hour day. The companies conceded the principle of the 8-hour day, but claimed to be obstructed in its adoption by reason of difficulties attending both inbound and outbound shipments, conditions which "depend for correction upon action both by the Government and the industry." The commission's settlement proceeded along the general lines it had taken in other industries:

(a) The principle of adjustment through negotiation and arbitration was established to take the place of strike and lockout during the period of the War.

(b) Prohibition of discrimination for union affiliation is rendered effective by its enforcement through administrative machinery. It is not sufficient to recognize in the abstract the right of workmen to organize. Therefore, effective means were provided to secure to the union the right to live and to grow.

(c) The unfairness of compelling workmen to deal individually with employers of large-scale industries, particularly emphasized in the case of non-English speaking workmen, is recognized in practice by allowing workmen to voice their claims through representatives.

(d) The specific demands of the workers as to changes in hours, wages, and conditions of employment were all left for determination by the United States administrator.

Here, as elsewhere, a tense situation threatening breakdown of a vital war industry was relieved by establishing machinery for adjustment. Under this machinery the parties are now proceeding to work out their difficulties. The hope is entertained that not only will specific grievances be justly dealt with but healthier permanent relationships will be created in the very process of seeking to reach adjustments.

CAUSES OF LABOR DIFFICULTIES.

While each industry presents its own peculiarities, certain underlying general factors applicable to all industries were found by the commission, during the three months' investigation, to be the cause of labor difficulties. The effective conduct of the War, declares the commission, suffers needlessly because of (1) interruption of work due to actual or threatened strikes, (2) purposed decrease in efficiency through the "strike on the job," (3) decrease in efficiency due to labor unrest, and (4) dislocation of the labor supply. Among the causes of unrest the following are given as being especially significant of the industrial needs of the War:

(a) Broadly speaking, American industry lacks a healthy basis of relationship between management and men. At bottom this is due to the insistence by employers upon individual dealings with their men. Direct dealings with employees' organizations is still the minority rule in the United States. In the majority of instances there is no joint dealing, and in too many instances employers are in active opposition to labor organizations. This failure to equalize the parties in adjustments of inevitable industrial contests is the central cause of our difficulties. There is a commendable spirit throughout the country to correct specific evils. The leaders in industry must go further, they must help to correct the state of mind on the part of labor; they must aim for the release of normal feelings by enabling labor to take its place as a cooperator in the industrial enterprise. In a word, a conscious attempt must be made to generate a new spirit in industry.

(b) Too many labor disturbances are due to the absence of disinterested processes to which resort may be had for peaceful settlement. Force becomes too ready an outlet. We need continuous administrative machinery by which grievances inevitable in industry may be easily and quickly disposed of and not allowed to reach the pressure of explosion.

(c) There is a widespread lack of knowledge on the part of capital as to labor's feelings and needs and on the part of labor as to problems of management. This is due primarily to a lack of collective negotiation as the normal process of industry. In addition there is but little realization on the part of industry that the so-called "labor problem" demands not only occasional attention but continuous and systematic responsibility, as much so as the technical or financial aspects of industry.

(d) Certain specific grievances, when long uncorrected, not only mean definite hardships; they serve as symbols of the attitude of employers and thus affect the underlying spirit. Hours and wages are, of course, mostly in issue. On the whole, wage increases are asked for mostly in order to meet the increased cost of living, and such demands should be met in the light of their economic causes. Again, the demand for the 8-hour day is nation-wide, for the workers regard it as expressive of an accepted national policy.

RECOMMENDATIONS.

In conclusion, the President's mediation commission submits the following recommendations:

1. The elimination to the utmost practical extent of all profiteering during the period of the war is a prerequisite to the best morale in industry.
2. Modern large-scale industry has effectually destroyed the personal relation between employer and employee—the knowledge and cooperation that come from personal contact. It is therefore no longer possible to conduct industry by dealing with employees as individuals. Some form of collective relationship between management and men is indispensable. The recognition of this principle by the Government should form an accepted part of the labor policy of the Nation.
3. Law, in business as elsewhere, depends for its vitality upon steady enforcement. Instead of waiting for adjustment after grievances come to the surface there is needed the establishment of continuous administrative machinery for the orderly disposition of industrial issues and the avoidance of an atmosphere of contention and the waste of disturbances.
4. The 8-hour day is an established policy of the country; experience has proved justification of the principle also in war times. Provision must of course be made for longer hours in case of emergencies. Labor will readily meet this requirement if its misuse is guarded against by appropriate overtime payments.
5. Unified direction of the labor administration of the United States for the period of the War should be established. At present there is an unrelated number of separate committees, boards, agencies, and departments having fragmentary and conflicting jurisdiction over the labor problems raised by the War. A single-headed administration is needed, with full power to determine and establish the necessary administrative structure.¹
6. When assured of sound labor conditions and effective means for the just redress of grievances that may arise, labor in its turn should surrender all practices which tend to restrict maximum efficiency.
7. Uncorrected evils are the greatest provocative to extremist propaganda, and their correction in itself would be the best counterpropaganda. But there is need for more affirmative education. There has been too little publicity of an educative sort in regard to labor's relation to the War. The purposes of the Government and the methods by which it is pursuing them should be brought home to the fuller understanding of labor. Labor has most at stake in this War, and it will eagerly devote its all if only it be treated with confidence and understanding, subject neither to indulgence nor neglect, but dealt with as a part of the citizenship of the State.

¹ Since this report was written, the direction of the labor administration for the War has been delegated to the Secretary of Labor.

TRADE AGREEMENTS IN THE WOMEN'S CLOTHING INDUSTRIES OF CINCINNATI AND ST. LOUIS.¹

BY BORIS EMMET, PH. D.

Prior to 1916 the extent of collective bargaining in the women's wear industries of Cincinnati and St. Louis was negligible. The achievements of the Cincinnati garment workers' unions in the form of effective trade agreements were insignificant. A similar situation prevailed in the women's clothing industries of St. Louis, where, in spite of the activity of labor organizations, no successful collective bargaining was taking place.

The causes responsible for the failure of the Cincinnati and St. Louis garment workers' organizations to achieve their objects need not be commented upon at great length. In both of these cities only a very small part of the workers in the trade were organized. Unrestricted immigration flooded the local labor markets, as it did the garment trades of New York, Philadelphia, and Chicago, and caused a severe competition for positions. This competition for jobs made effective organization impossible. The correctness of this statement is confirmed by the present management of the garment workers' unions of both cities and by many employers, all of the informants pointing emphatically to unrestricted immigration "as the principal cause for the prolonged lack of effective organization on the part of the workers."

The great diminution in the amount of immigration which came as a result of the European War appears to have had a salutary effect upon the existing labor organization. The decrease in the vast and steady inflow of potential competitors for positions contributed greatly to the stabilization of the garment workers' unions. A curtailed supply of labor increased the bargaining power of workers already in the trade, but particularly of those, who, through unionization, could take immediate advantage of the new situation. So great, however, was the prewar labor supply in the garment trades of these cities that it took more than a year to exhaust it. Not until the busy season of the fall of 1915 were the effects of a diminished labor supply felt.

The shortage of labor due to the sudden curtailment of immigration was further intensified with the entry of the United States into

¹ This article is a preliminary summary of one of the phases of a study of trade agreements to be published by the bureau. Similar articles dealing with trade agreements in the women's wear industries of New York City, Philadelphia, and Chicago appeared, respectively, in the December, 1917, and January and February, 1918, issues of the MONTHLY REVIEW.

the war, which immediately resulted in a demand for vast amounts of war clothing, and in additional need, therefore, for the services of needle-trade hands in the men's clothing industries which received the war contracts. The intensified demand for such workers in the men's clothing trades drew many of the women's garment workers from their old positions to the more remunerative and steady employment offered by the war-clothing establishments.

A diminished supply of labor, coupled with a greatly intensified demand for it, was, no doubt, responsible for the establishment of effective collective bargaining on a large scale in the women's ready-to-wear clothing industries of Cincinnati, as well as for the appearance, for the first time, of a relatively strong garment workers' union in the city of St. Louis. As will be shown, the influence of this organization is just beginning to make itself felt.

CINCINNATI.

The total number of workers employed at the present time in all of the garment industries of Cincinnati is estimated to be close to 1,600. Of this number about 1,200 are engaged in the manufacture of cloaks, suits, and skirts, the remaining 400 being employed in a dozen establishments which specialize in the making of house dresses, kimonos, and white goods or women's underwear. As regards unionization, various conditions exist in the different industries mentioned. No unionism to speak of exists in the house-dress, kimono, or white-goods industries. A different situation, however, is to be found in the cloak and suit industry, the principal women's wear industry of the city. More than two-thirds of the cloak and suit makers of Cincinnati are members of unions and work at the present time under union conditions, as described elsewhere in this article.

The cloak makers of Cincinnati are organized as locals 30, 63, and 98 of the International Ladies' Garment Workers' Union. These three locals are connected by means of a joint committee known as the Joint Board of Cloak and Skirt Makers' Unions of Cincinnati, which is made up of delegations from each of the local unions. It is in the name of this board and with its sanction that all trade agreements with employers are entered into.

On February 7, 1916, a general strike was declared in the cloak and suit industry of Cincinnati for the purpose of forcing union recognition and collective bargaining.

The strike proved effective and achieved its purposes. As a result of it, 15 agreements were signed with as many firms. Each of the agreements is to run for one year from the date of signing and provides for the following: (1) The employer agrees to hire none but members of the union to perform all the cutting, sewing, pressing, finishing,

and busheling; (2) there is to be at all times in the shop of the employer a shop chairman, selected by the employees to represent them in their dealings with the employer; (3) duly authorized union officials are to be allowed to visit the factory for the purpose of investigating existing conditions regarding safety, sanitation, and ventilation as well as to ascertain if the provisions of the agreement are complied with; (4) all cutters, trimmers, sample and duplicate makers, bushelmen, and skirt underpressers are to work by the week and at the following minimum weekly rates of wages: Full-fledged cutters, \$26; trimmers, \$20; sample and duplicate operators, \$26; sample and duplicate finishers, \$16; bushelmen, \$22; skirt underpressers, \$18; (5) an increase of \$2 per week above the scale of February 7, 1916, to all week workers other than those specified in the preceding provision; (6) employees engaged in branches of the trade not enumerated above are to be paid by the piece; (7) piece rates are to be determined on a basis which will yield to a jacket operator 75 cents per hour, to a skirt operator 60 cents, to an upper presser 60 cents, and to a finisher 50 cents per hour; (8) all piece rates are to be determined collectively by the employer and a piece-price committee freely selected by the employees, and employees are not to be required to work on garments before a mutually satisfactory price has been established; (9) if, upon investigation, it should be established that piece prices have been settled below the hourly base rates specified above, such prices are to be resettled; (10) a week's work is to consist of 48 hours, distributed over six working days; (11) overtime work is to be limited to six hours per week, and permissible only during the busy seasons of the year; (12) time and a half for overtime work to week workers; (13) four legal holidays, with pay, to week workers; (14) equal distribution of work among all workers; (15) no employee to be discharged without good cause after an initial trial period of two weeks, with the further proviso that workers wrongfully discharged or laid off are to be entitled to full pay for the time lost; (16) any dispute between the firm and its employees which can not be adjusted by the shop chairman or union representative is to be submitted to arbitration.

As mentioned, the organized two-thirds of the cloak and suit makers of Cincinnati work under the conditions just enumerated. The unorganized workers of the trade are employed in four establishments, which, although having no understanding with the union, and still clinging, nominally at least, to individual bargaining methods, maintain very similar conditions of hours and wages. It is the opinion of the employers who deal collectively with their employees that the rates of pay and general conditions of work in the Cincinnati cloak and suit trade have been thoroughly equalized and that the few non-

union shops actually maintain union standards. The existence of such a situation is attributable to the fact that the relative scarcity of workers which some time ago began to be felt during the busy seasons, has made the existing trade-unions powerful. Employers incurring the active enmity of the garment workers' organization find themselves unable to secure the needed help during the busy seasons of the year. Instances are actually known of employers who had to give up their business on account of lack of help, due chiefly to their unwillingness to maintain union standards.

The agreements in operation at the present time in the cloak and suit industry are working satisfactorily. Grievances which arise are peacefully and quickly adjusted by the parties themselves without recourse to the assistance of outside arbitrators or umpires provided for by the agreement in cases upon the disposition of which the parties themselves can reach no satisfactory settlement.

In addition to the 19 cloak and suit houses referred to there are to be found in the city of Cincinnati about a dozen firms which specialize in the manufacture of house dresses, kimonos, and women's underwear. These establishments employ about 400 workers—mostly unskilled immigrant girls, with little or no aptitude for organization. It is said on reliable authority that the labor conditions prevailing at the present time in the house-dress, kimono, and white-goods establishments are oppressive and rates of wages low. An effort was made some time ago to organize these trades, but with little success. One firm, employing about 40 hands, agreed to introduce and maintain union conditions of work and pay, but refused to recognize the union. This firm granted to its employees the following concessions: (1) A 48-hour week; (2) time and one-half for overtime work; (3) a 15 per cent increase in wage rates; (4) a minimum weekly wage of \$7 for beginners; (5) a promise that in the future all piece rates would be made in consultation with a price committee selected by the employees.

The specified conditions are interesting because of the fact that the joint board of cloak makers' unions, which is temporarily in charge of the situation, intends to make similar demands upon the other employers of the trade, and has a good chance to win the desired concessions. A definite demand for union recognition will, it is said, supplement the other demands to be made.

ST. LOUIS.

Within the boundaries of the city of St. Louis are located about 35 establishments engaged in the manufacture of women's ready-to-wear clothing. The manufacturing activity of these establishments is confined principally to the making of cloaks, suits, skirts, and, in a

very few instances, dresses. Very few waists, house dresses, and kimonos and almost no white goods are made in St. Louis.

The total number of women's garment workers in the city is estimated to be slightly over 1,500, one-eighth of which, or about 200, are organized as Local 15 (skirt, waist, and dress makers' union) of the International Ladies' Garment Workers' Union. This union has at the present time seven trade agreements with as many firms. The number of workers covered by these agreements is about 150. The number of workers affiliated with the union is, however, somewhat larger, as a considerable number of union garment makers are employed by firms which have no trade agreements with their employees.

The existing trade agreements are uniform in their provisions, each specifying the following conditions: (1) Employment of none but union members as long as the union is willing and ready to furnish all the needed help; (2) the presence in each establishment of a shop chairman and piece-rate committee;¹ (3) limitation of extent of overtime, such overtime to be confined to three evenings per week—Tuesday, Wednesday, and Thursday—between 5.30 and 8 o'clock, and only during the busy seasons of the year; (4) payment to week workers for certain legal holidays; (5) equal distribution of work among the workers; (6) peaceful adjustment of all grievances by the parties themselves, and in cases upon the disposition of which no satisfactory agreement can be reached, by a mutually agreeable third and outside person, or umpire, whose decision in the matter is to be final and binding upon both sides.

The number of women's garment making establishments in St. Louis which deal collectively with their employees is not sufficiently large to exercise any definite influence in determining the conditions of labor for the industry at large, the major part of which, as already stated, is still on an individual bargaining basis. This form of bargaining does not appear to work in the interests of the workers. It is stated on reliable authority that the conditions of labor, and particularly of pay, in existence at the present time in the major part of the industry, are considerably below those specified in the agreements described above. The remedy for this condition lies, apparently, in the establishment of some form of collective bargaining.

General industrial conditions in the garment trades of St. Louis at the present time seem to be very favorable for establishing effective collective bargaining. The local supply of women's garment makers

¹ The shop chairman is the official representative of the union on the premises of the firm, in charge of guarding the interests of the employees. He is in constant touch with his fellow workers, gives advice when needed, hears employees' complaints, and confers with the firm for the purpose of adjusting grievances. The piece-rate committee is in charge of rate making, being called into consultation by the employer whenever piece rates are to be set, it being understood that no rate is to become effective unless approved by the committee.

has been greatly diminished by the cessation of European immigration and by the entry of the United States into the war, which drew many women's garment workers to war clothing factories where wages were better and employment steadier. This movement of women's garment makers has greatly strengthened the strategic position of the organized minority of the workers in the trade. The union is at the present time contemplating the launching of a campaign for a complete unionization of the industry. Uniform demands are to be made upon all of the women's garment manufacturers of the city. Although not as yet finally formulated, these demands will embrace the following: (1) Union recognition and collective bargaining; (2) minimum weekly rates of wages as follows: For cloak cutters, \$28.50; for skirt cutters, \$25; for trimming cutters, \$20; (3) equal distribution of work among the workers; (4) 48-hour week; (5) limitation of overtime, such overtime to be permitted only during the very busy seasons of the year; (6) time and one-half for overtime work; (7) pay to week workers for certain legal holidays; (8) peaceful adjustment of all grievances, with the further provision that cases upon the disposition of which the parties themselves are unable to agree are to be submitted for adjustment to a mutually satisfactory outside party, or umpire, whose decision is to be considered as binding upon both sides; (9) in exchange for a promise of the employer not to lock out his help, the union is to refrain from calling strikes pending the peaceful adjustment of grievances by the agencies created for that purpose.

LABOR AND THE WAR.

ADJUSTMENT OF SHIPBUILDING DISPUTES ON THE PACIFIC COAST.

On August 20, 1917, an agreement was entered into by Government officials and labor chiefs, the object of which was that disputes concerning wages, hours, or conditions of labor in the construction of shipbuilding plants or of ships might be speedily and satisfactorily adjusted without interruption of production necessary to the national defense.

This agreement, which was reproduced in the October, 1917, number of the MONTHLY REVIEW (p. 27), provided for an adjustment board of three persons "to be appointed by the United States Shipping Board Emergency Fleet Corporation, one to represent the said corporation, one to represent the public and to be nominated by the President of the United States, and one to represent labor, the last to be nominated by Samuel Gompers." As constituted, the board consisted of V. Everit Macy, of New York, chairman; A. J. Berres, of Washington, secretary-treasurer of the metal trades department of the American Federation of Labor; and E. F. Carry, of Chicago, president of the Haskell-Barker Car Co., representing, respectively, the public, labor, and the Emergency Fleet Corporation. After serving for a time Mr. Carry, representing the Emergency Fleet Corporation, resigned and was succeeded by Mr. Louis A. Coolidge.

On November 4, 1917, the adjustment board announced its decision as to disputes in shipyards of San Francisco Bay, Columbia River, and Puget Sound districts. This decision, which took effect November 12, 1917, is as follows:

DECISION OF SHIPBUILDING LABOR ADJUSTMENT BOARD TOUCHING DISPUTES IN SHIPYARDS OF SAN FRANCISCO BAY AND COLUMBIA RIVER AND PUGET SOUND DISTRICTS.

I. *Origin and purpose of board.*—The Shipbuilding Labor Adjustment Board is a war board. Its supreme object is to hasten the carrying out of the shipbuilding program of the Government. Employers and employees in the shipbuilding industry are enlisted in their country's service just as truly as the soldiers at the front. With all possible earnestness we wish to impress upon them their obligation to merge their individual interests in the common purpose of supplying the ships which the country requires. With their help we shall win the war. Without their loyal cooperation our democratic institutions will go down to merited defeat.

II. *Obligation of employers and employees to cooperate.*—The owners of the shipyards are, during the duration of the war, merely the agents of the Government. Practically the whole shipbuilding industry of the country is being carried on for the benefit of the Government. Employers and employees in the shipyards must realize that the war has changed their relation to each other. They are now working together for the preservation of their common country.

The Government is insistent that the ships it requires must be built and built promptly. It is equally insistent that standards of living must be preserved. Employees may thus join with hearty accord in the efforts of employers to carry out the shipbuilding program and rely on the good faith of the Government and of this board to see to it that any grievance that they may have is promptly considered and fairly adjusted.

III. *Rapid expansion of shipbuilding industry called for.*—The national program requires an increase in the output of ships from the 750,000 tons turned out in 1916 to 6,000,000 tons in 1918. This necessitates the introduction, wherever possible, of the two and even three shift systems. Immediate steps to bring about this change must be taken by shipyard owners. It will involve not only the enlargement of the labor force, but provision of adequate lighting facilities and safety devices to protect employees from the special hazards connected with nightwork.

At a rough estimate the shipyards of the Pacific coast already employ 50,000 men. To meet the pressing needs of the Government at least 75,000 more men must be employed. This will mean a demand for at least 30,000 skilled mechanics in addition to those already employed, a demand that can only be satisfied by drawing mechanics to the shipyards from less essential industries and by training men who have not yet the required skill.

Realization of these conditions is causing the Government to concern itself seriously with the problem of redistributing and increasing the available supply of skilled workers. In San Francisco and Seattle and to a less extent in Portland, employers look to the trade-unions to supply additional workers in the different crafts as they are required. The evidence presented to us indicates that some of the unions are already unable to meet demands on them. In view of the certainty of a greatly increased demand, the board urges upon the Department of Labor the extension of the Federal Employment Service in California, Oregon, and Washington to serve as a supplement to the trade-unions when they are unable themselves to supply skilled craftsmen. The board also urges that representatives of organized labor and the employers concerned work out, in cooperation with agents of the Government, plans for the more rapid training of skilled workers in the different crafts.

IV. *Discrimination against unfair material.*—Whatever reasons may be urged in defense of discrimination against so-called "unfair" material in time of peace, to permit such discrimination to interfere with the defense of the Nation in time of war would be intolerable. We trust to the good sense and patriotism of the employees to refrain from such practices when opposed to the interests of the Government.

V. *Factors considered in determining wages.*—In arriving at a fair wage scale we have had two ends in view—equalizing wage rates in the three shipbuilding centers and adjusting wages to the higher cost of living resulting from the war.

The enticing of workers from one plant to another and from one city to another has had a demoralizing effect on the production of ships. The establishment of a uniform wage scale for the San Francisco, Columbia River, and Puget Sound districts will have a steadying influence. Therefore, since the cost of living in these districts is substantially the same, we have decided upon a uniform scale for all of them.

In order to preserve the standards of living in existence before the war we took as a basis the rates on which employers and employees had united as shown by the agreements in effect June 1, 1916. To determine the increase in the cost of living from that time until October 1, we made use not only of the evidence presented at our hearings in the three cities but also of all other available material and investigations, including Federal, State, and municipal reports. The wages fixed represent the wages current in the three cities, increased to conform to the ascertained increase in the cost of living.

We believe that public opinion approves the intention of the Government to protect, so far as may be possible, American standards of living. On the other hand

we do not believe that advantage should be taken of the national emergency to increase wages beyond a point corresponding to the increased cost of living. Attracting workers to the shipbuilding industries of the Pacific coast by establishing higher wages than are justified by the expense of living would, we believe, instead of improving the national labor situation, cause even greater disorganization than already exists. As a national board we feel bound to view our task nationally and arrive at decisions that will tend to increase the production of ships and other essential commodities, not merely in one locality but in the whole country.

Cooperation of employers and employees will be counted upon to adjust in proportion to the scale hereby fixed all differences, if any, which now exist or which may hereafter arise with respect to wages of employees not specifically named in the attached schedule. In any event it must be borne in mind that any such differences not covered by this report and decision are subject to prompt adjustment through the medium of the examiner of each district.

VI. *Decision of board as to issues in dispute.*—Our decision in regard to the issues presented to us is as follows:

First. The minimum rates of wages to be paid the different classes of employees in the shipyards covered by this decision shall be as set forth in the schedule appended hereto (Exhibit A), which is made a substantive part of this award.

Second. These rates are to be retroactive for employees in the shipyards of San Francisco Bay district from September 22, for those in the shipyards of the Columbia River district from September 5, and for those in the yards of the Puget Sound district from August 1.

Third. The shipyard owners shall pay to employees who were employed by them during the interval from the dates specified above for the respective districts and the dates when the new rates fixed by this award are put into effect, back pay for all the time they worked in such interval equal to the difference between their wages calculated at the new rates and the wages they actually received, such back pay to be paid within two weeks after this decision is to take effect.

Fourth. Rates of wages now being paid in excess of the minimum rates fixed are in no wise altered or affected by the establishment of these rates.

Fifth. The working conditions in the shipyards of the San Francisco Bay district shall be those agreed to by the representatives of employers and employees in said district as appended hereto (Exhibit B), which agreement is made a substantive part of this award.

Sixth. The working conditions in the shipyards of the Columbia River district shall be those heretofore established by the parties according to the terms of Exhibit C hereto appended, which is made a substantive part hereof and all existing craft conditions not changed by same Exhibit C shall remain unchanged unless modified by agreement of the parties approved by this board; provided that double time shall be paid for work on holidays and on Saturday afternoons in June, July, and August, and that rate of payment for work in excess of eight hours a day shall be fixed by mutual agreement or, failing agreement, by the examiner for the Columbia River district.

Seventh. The working conditions in the shipyards of the Puget Sound district shall be determined by collective agreement of the employers and employees in the shipyards of said district, subject to the approval of the board.

Eighth. This decision shall apply to all shipyards of the San Francisco Bay, Columbia River, and Puget Sound districts which were involved in disputes with their employees during September or October, 1917.

Ninth. In accordance with the understanding reached by all parties throughout the coast district, no change shall be made in any existing craft conditions nor shall any new craft conditions be established until the same shall have been agreed upon between employer and employee, subject to the approval of this board.

Tenth. This decision shall be put into effect on or before Monday, November 12, 1917.

VII. *Spirit of good will by both sides.*—In conclusion we wish to record our appreciation of the cooperation spirit displayed by both employers and employees as shown by the action of the employees in all three cities in returning to work while awaiting our decision.

We wish to express our special indebtedness for valuable assistance and advice to Mr. Gavin McNab, of San Francisco; to Mr. James A. Franklin, president International Brotherhood of Boiler Makers, Iron Shipbuilders and Helpers of America; to Mr. James Wilson, president Pattern Makers' League of North America; to Mr. William H. Johnston, president International Association of Machinists; Mr. Milton Snellings, president International Union of Steam and Operating Engineers; and Mr. James V. Ryan, organizer, Amalgamated Sheet Metal Workers, International Alliance.

The memorandum to which this board owes its existence provides for the selection of an examiner in each district to act for the board in the settlement of disputes which can not be settled by the employees and employers immediately concerned, or by the district officer of the Emergency Fleet Corporation. Appeal from the decision of the examiner may be taken by either side to the board.

We hereby appoint, as examiner of the Puget Sound district, ex-Gov. Henry McBride of Seattle, and as examiner of the Columbia River district, Mr. Richard W. Montague of Portland.

V. EVERIT MACY, *Chairman.*

LOUIS A. COOLIDGE.

(Approved except as to wage scale.)

A. J. BERRES.

SAN FRANCISCO, CAL., November 4, 1917.

EXHIBIT "A."

Minimum-wage scale for journeymen, specialists, helpers and laborers in specified crafts, established by board in decision of Nov. 4, 1917.

Machinists.....	\$5.25	Riveters, chippers, and calkers..	\$5.25
Machinists, specialists.....	4.00	Acetylene welders.....	5.25
Machinists' helpers.....	3.60	Plate hangers.....	5.00
Molders.....	5.25	Punch and shear men.....	4.50
Pattern makers.....	6.50	Planer men.....	4.20
Blacksmiths.....	5.25	Countersinkers.....	4.20
Blacksmiths' helpers.....	3.90	Drillers and reamers.....	4.20
Anglesmiths.....	5.25	Holders-on.....	4.20
Heaters.....	4.50	Slab helpers.....	3.90
Pipe fitters.....	5.25	Plate hangers' helpers, hook tend-	
Pipe fitters' helpers.....	3.60	ers, flange fire helpers, and ma-	
Coppersmiths.....	6.00	chine helpers, flange.....	3.90
Coppersmiths' helpers.....	3.90	Boiler makers' helpers.....	3.90
Firemen.....	3.60	Ship fitters' helpers.....	3.60
Sheet-metal workers.....	6.00	Rivet heaters.....	3.15
Sheet-metal workers' helpers.....	3.60	Electrical workers.....	5.25
Painters.....	5.00	Electrical workers' helpers.....	3.60
Painters, bitumastic.....	6.00	Molders' helpers.....	3.60
Flange turners.....	6.00	Foundry carpenters.....	4.50
Angle and frame setters.....	5.25	Furnace men.....	4.50
Pressmen.....	5.25	Casting cleaners.....	3.90
Boiler makers.....	5.25	Laborers.....	3.25
Ship fitters.....	5.25		

Wooden-ship yards.

Shipwrights, joiners, boatbuilders, and millmen.....	\$6.00
Calkers.....	6.50
Laborers and helpers.....	3.25

Supplementary rates established by Emergency Fleet Corporation Dec. 10, 1917.

Stationary and operating engineers \$5.25	(San Francisco.)
Firemen, oilers, and water tenders. 3.60	Frost and asbestos workers..... \$5.25
Lofts men..... 6.00	Metal polishers and finishers..... 5.25
Rivet heaters..... 3.60	Bridge and structural-iron workers. 5.25
Shipyard riggers:	(Seattle.)
Foremen..... 6.00	Storekeepers, watchmen, and jani-
Journeymen..... 5.00	tors..... 3.60

Supplementary rates established by examiner Henry McBride for Puget Sound District, Dec. 14, 1917.

Engineers:	Steam and electrical operators in
Locomotive cranes..... \$6.00	power houses..... \$5.50
Gantry cranes..... 6.00	Engineers in charge of boilers..... 5.00
Double cable ways..... 6.00	Firemen with engineer in charge.. 4.00
All double machines..... 6.00	Oilers..... 4.50
Electrical, steam, or air oper-	Furnace men..... 4.50
ated winches and donkeys.. 6.00	Single-drum steam, electric, or air
Single aerial cables, ways.... 5.50	winches and donkeys, not hoist-
Overhead cranes (in shops)... 5.50	ing..... 4.50

Wooden-ship yards, Dec. 22, 1917.

Fasteners.....	\$4.50
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To these rates 10 per cent increase was added for all men who work for six consecutive days in any week, a total of not less than 48 hours, by order of Fleet Corporation on December 10, effective on and after December 15.¹

EXHIBIT "B."

Agreement as to working conditions in San Francisco district.

First. That each party to this agreement agrees and consents to the following rules and regulations which shall govern the mutual relations of the parties herein mentioned.

Second. Eight hours shall constitute a day's work and be worked between the hours of 8 a. m. and 5 p. m., provided, however, that this shall not interfere with the introduction of shifts, also that certain objections applying to the starting and quitting time in some of the trades be removed by the Iron Trades Council. Saturday half holiday for the months of June, July, and August will be in effect 1918.

Third. All time worked over the regular eight-hour day shall be paid for at the rate of time and one-half for the first three hours, after which double time shall be paid, excepting that after February 1 double time shall be paid for all overtime. Double time shall be paid for Sundays and the following holidays: New Year's Day, Washington's Birthday, Memorial Day, July Fourth, Labor Day, Admission Day, Thanksgiving Day, Christmas Day, and on election days for governor and President

¹ This bonus was made a regular wage increase for all trades in this Exhibit. See pp. 73 and 74.

only. An additional 5 per cent shall be added to the daily rate of all men working night shifts.

Fourth. Under no circumstances shall any work be performed on Labor Day except to preserve life or property.

Fifth. Such grievances as do not relate to the subject of hours or wages covered by this agreement which may arise in any shop shall be given consideration as follows: Upon complaint being made by either party to this agreement in writing, the duly authorized representative of the firm and the business representative of the union, or the representative of the Iron Trades Council who may be elected to represent the union, shall immediately proceed to the shop or shops where such grievances exist and endeavor to mutually settle the same.

Sixth. Any grievance that can not be settled in this manner must be referred to conference, the call and subject for such conference to be made in writing. This conference shall be called within six days from receipt of notice for the purpose of adjusting the question at issue, and the conference shall continue day after day until the question at issue is settled, unless mutually postponed.

Sixth (a). Any disputes which can not be settled by means provided herein shall be referred to the examiner appointed by the Labor Adjustment Board as provided in the memorandum of August 20, 1917, and which is attached hereto and made a part of this agreement.

Seventh. No change shall be made in existing conditions nor any new conditions established by any party to this agreement until the same has been agreed upon in conference. And these conditions shall always be construed so as to promote to the fullest extent the policy of the Government during the period of national need.

Eighth. Employees shall be paid on some regular and definite day of each week, and in no case shall more than a week's pay be held back.

Ninth. During the life of this agreement there shall be no strike on the part of the employees nor lockout on the part of the employers.

Tenth. Any employee laid off, discharged, or quitting of his own volition shall receive all wages due him within 24 hours of the termination of his employment, excepting Sundays and holidays.

Eleventh. Business representatives of the different crafts shall be given access to the shops or yards at the discretion of the management.

Twelfth. This agreement shall be in full force and effect for a period of 12 months from date of signing thereof. Ten months after the signing of this agreement a conference shall be held for the purpose of the consideration of a continuation of the agreement or formation of a new one. This conference committee shall consist of not more than three members from the California Metal Trades Association and the California Foundrymen's Association jointly, and not more than three members from the Iron Trades Council, and the conference shall be held in continuous session and shall proceed until an agreement or deadlock is reached. Nothing in this paragraph shall be construed as superseding in any manner the provisions of the memorandum of August 20, 1917, referred to in paragraph 6 (a).

EXHIBIT "C."

Agreement as to working conditions in the Columbia River district.

First. Eight hours shall constitute a day's work.

Second. All time worked over the regular eight-hour day shall be paid for at rate or rates to be established by the Shipbuilding Labor Adjustment Board, including holidays: New Year's Day, Washington's Birthday, Decoration Day, July Fourth, Labor Day, Thanksgiving Day, Christmas Day, and general election days.

Third. The employees in each craft or calling in a shop or yard shall have the right to select three of their number to represent them as members of a shop committee.

Each member of this committee shall be chosen by majority vote through secret ballot in such manner as the employees shall direct. The chairman of each craft committee shall be a member of the joint shop committee.

Fourth. When a grievance arises it shall be taken up by the committee, first with the foreman, second with the superintendent. In the event the question has not been adjusted the committee shall then take the matter up with the president of the company. If the matter can not be adjusted between the shop committee and the president, the shop committee shall have the right to call into conference with the president a representative chosen by the committee. In case the president fails to adjust the matter satisfactorily it shall be submitted to the examiner to be appointed by the Shipbuilding Labor Adjustment Board as provided in memorandum of August 20, 1917, which is attached hereto and made a part hereof.

Fifth. Employees shall be paid every Saturday at time of quitting work, and in no case shall more than three days' pay be held back. This practice to be put in effect as soon as practicable.

Sixth. Any employee being laid off, discharged, or quitting of his own volition shall within 24 hours receive all wages due him.

Seventh. A trained nurse shall be in attendance to render first aid at all times whenever men are working.

Eighth. So far as practicable and when men are available, all labor in connection with construction work and repairs shall be done by employees in the trade or calling generally recognized as having jurisdiction therein.

Ninth. All questions relating to basic wage scale and overtime shall be left to the determination of the Shipbuilding Labor Adjustment Board, such determination of wages to be retroactive as said board shall direct.

Tenth. Any committeeman appointed hereunder who shall be found to have been discharged without just and sufficient cause after due investigation in the manner herein provided for the adjustment of grievances shall be reinstated with full pay for all time lost.

Eleventh. The question of employing apprentices shall be taken up for adjustment in the manner provided herein for the adjustment of grievances.

Twelfth. In view of the fact that the existing strike was called on account of differences which have now been adjusted, no discrimination shall be practiced in the reemployment of the former employees.

Thirteenth. It is understood and agreed that any concessions of recognized principles by either party to this agreement shall be without prejudice for the sole purpose of assisting the Government in the successful prosecution of the war, but that this agreement shall continue during the period of the war.

On December 8, 1917, the Navy Department and the United States Shipping Board Emergency Fleet Corporation issued two important labor documents. The first relates to a further adjustment of wages and hours of employees in shipyards of the Pacific coast, and is as follows:

STATEMENT SUBMITTED BY THE NAVY DEPARTMENT AND THE
UNITED STATES SHIPPING BOARD EMERGENCY FLEET CORPORATION.¹

In order to provide a proper stimulus to increase the output in the shipyards of the Pacific coast, and in order to encourage men who live at great distances to leave their homes and enter on service in the shipyards, the United States Shipping Board

¹ American Federationist, January, 1918, p. 49.

Emergency Fleet Corporation will pay to all employees of shipyards on the Pacific coast, with the exception of those working under the Seattle agreement, a war-service payment of 10 per cent, effective on and after December 15, 1917, to all men who work for 6 consecutive days in any week a total of not less than 48 hours, provided that men prevented from working on account of the elements, physical condition, or any unavoidable cause will not be denied the benefits provided for under this statement, the payment to be computed on straight time at the minimum rate provided in the award; and on February 1, 1918, a further stimulus to attract men to the shipbuilding industry will be provided by converting the above to a permanent increase of 10 per cent of the adjustment-board rates, provided that nothing in this memorandum shall prevent a rehearing of this matter by the wage adjustment board. It is stipulated that for the purpose of such rehearing the award of the adjustment board shall be considered as expiring at all Pacific coast plants six months from the date at which the award became effective in the Puget Sound district—that is, February 1, 1918.

December 8, 1917.

FRANKLIN D. ROOSEVELT.
CHARLES PIEZ.
WILLIAM BLACKMAN.
J. A. FRANKLIN.
JAS. O'CONNELL.
JOHN I. NOLAN.

The second of these statements is a new agreement entered into by the Metal Trades Department of the American Federation of Labor, the Emergency Fleet Corporation, and the Navy Department. This agreement, which is reproduced below, supersedes the agreement of August 20, 1917.

MEMORANDUM FOR THE ADJUSTMENT OF WAGES, HOURS, AND CONDITIONS OF LABOR IN SHIPBUILDING PLANTS.¹

When disputes arise concerning wages, hours, and conditions of labor in the construction or repair of shipbuilding plants, or of ships in shipyards, under the United States Shipping Board Emergency Fleet Corporation, or under said shipping board, or under contract with said corporation, or with said board; or if questions coming under the jurisdiction of the board arise with reference to such construction in a private plant in which construction is also being carried on for the Navy Department, and attempts at mediation or conciliation between employers and employees have failed, the adjustment of such disputes shall be referred to an adjustment board of three persons, hereinafter called the "board," one to be appointed jointly by the said corporation and the Navy Department, one to represent the public and to be appointed by the President of the United States, and one to represent labor, to be appointed by Samuel Gompers, president of the American Federation of Labor. It is understood, however, that this memorandum shall in no wise serve as a precedent for procedure in Government plants under the War or Navy Departments, except as may be authorized by such departments:

The plant where such construction is being carried on shall be geographically districted by the board. In each district the contractors in whose plants such construction is being carried on, and the representatives of such international labor organizations as have members engaged in such production or construction in such

¹ American Federationist, January, 1918, p. 50.

plants and as are selected for the purpose by the labor member of the board, shall be called upon, under conditions to be laid down by it, to agree upon a person or persons who shall act under the direction of the board as examiner or examiners in such district. If the board deems it advisable itself to name an examiner or examiners, or if the representatives of the contractors and of the labor organization do not agree, then the board shall by unanimous action select a person or persons for such position. The examiner shall be subject to removal by the board at any time by majority vote. It shall be the duty of the district officer of the United States Shipping Board Emergency Fleet Corporation to report promptly to the board and to the examiner of the district, if such examiner shall have been appointed, any dispute with reference to wages, hours, or conditions of labor which he is unable to adjust satisfactorily to the principals concerned.

As basic standards where such construction is being carried on, the board shall use the wage rate prevailing in the district in which such plant or plants are located, provided such wage rates have been established through agreements between employer and employees and are admitted to be equitable. Consideration shall be given by the board to any circumstances arising after such wages, hours, or conditions were established and which may seem to call for changes in wages, hours, or conditions. Where no such agreements exist and where, as in the case of new industrial districts, a proper basis of wages and conditions is difficult to determine, the board shall have the right to put into effect the rates which were awarded after due investigation and determination in other districts in which living conditions and cost of living are substantially the same. The board shall keep itself fully informed as to the relation between living costs in the several districts and their comparison between progressive periods of time. The decisions of the board shall, under proper conditions, be retroactive, and it shall be the duty of the board to make the decision effective. At any time after six months have elapsed following such ratified agreement or any such final decision by the adjustment board on any question as to wages, hours, or conditions in any plant or district, such questions may be reopened by the adjustment board for adjustment upon request of the majority of the craft or crafts at such plant affected by such agreement or decision, provided it can be shown that there has been a general and material increase in the cost of living. The decisions of the board will, in so far as this memorandum may be capable of achieving such result, be final and binding on all parties: *Provided, however,* That either the employers or employees in any district may have the right to appeal from the decision rendered by the adjustment board to a board of review and appeal to be made as follows: Three members to be named jointly by the United States Shipping Board Emergency Fleet Corporation and the United States Navy Department, and three to be named by the president of the American Federation of Labor.

It is hereby stipulated and agreed that this memorandum shall supersede and stand in place of the "Memorandum for the adjustment of wages, hours, and conditions of labor in shipbuilding plants," signed August 20, 1917, and that it shall become effective this 8th day of December, 1917.

FRANKLIN D. ROOSEVELT,
Acting Secretary of the Navy.
CHARLES PIEZ,
Vice President, United States Shipping Board Emergency Fleet Corporation.
WILLIAM BLACKMAN,
Assistant to General Manager.
JAMES O'CONNELL,
President, Metal Trades Department.
JOHN I. NOLAN,
International Molders' Union of North America.
J. A. FRANKLIN,
International President of Boilermakers and Iron Shipbuilders of America.
JAMES WILSON,
President, Pattern Makers' League of North America.
MILTON SNELLINGS,
General President, International Union of Steam and Operating Engineers.
G. C. VAN DORNES,
General Vice President, International Brotherhood of Boilermakers and Helpers.
F. J. McNULTY,
International Brotherhood of Electrical Workers.
JOHN J. HYNES,
President, Amalgamated Sheet Metal Workers of America.
WILLIAM H. JOHNSTON,
International Association of Machinists, per P. Flaherty.
W. W. BRITTON,
President, International Union of Metal Polishers.

UNITED STATES EMPLOYMENT SERVICE ORGANIZED BY THE DEPARTMENT OF LABOR.

On January 3, 1918, the Secretary of Labor, W. B. Wilson, announced the separation from the Bureau of Immigration, under whose control it has been for the past 10 years, of that branch of the Department of Labor handling employment matters, and its reorganization and expansion immediately in the office of the Secretary of the Department. The Employment Service has been organized as the Nation's war-labor mobilizing and distributing machine and has already become one of the largest and most important war prosecuting agencies of the National Government. In order to disseminate as widely as possible official information connected with the activities of the service, the needs of the Government for workers in all branches of industry and the methods to be pursued by the Employment Service in bringing laborers and jobs together with a view to a speedy and efficient prosecution of the war, a weekly bulletin is now being published, the first issue of which appeared on January 28, 1918.

It is called the "U. S. Employment Service Bulletin," and in this initial issue an editorial announcement is made that "its primary purpose is to distribute information and promote coordination among the officials and employees of the Federal Employment Service and of the cooperating State and municipal employment offices and State councils of defense." The following statement, outlining the work and organization of the Employment Service, has been authorized by the director:

The organization of the Service to meet the labor-distribution problem is one of the features of the national war-labor program, the administration of which has been delegated to Secretary Wilson and the department. It will be the task of the extended Service to furnish millions of workers for the various war industries. It is estimated that by August between 3,000,000 and 4,000,000 workers will be needed in agriculture, shipbuilding, munitions making, and other essential industries.

John B. Densmore, of Montana, for the past five years Solicitor for the Department of Labor, has been appointed Director of the United States Employment Service by Secretary Wilson. Charles T. Clayton, of Maryland, is assistant director.

The details of the operation of this national labor distribution machinery will be managed by four divisions, the chiefs of which, together with the director and assistant director, will constitute a policies board. The statistical data in connection with the employment service will be tabulated and published from time to time by the Bureau of Labor Statistics of the Department of Labor. The following are the four divisions, with the names of their respective chiefs:

Division of Information, Administration, and Clearance.—T. V. Powderly, of Pennsylvania, chief.

Woman's Division.—Mrs. Hilda Muhlhauser Richards, of Ohio, chief.

Division of Reserves.—William E. Hall, of New York, national director of the United States Public Service Reserve and the United States Boys' Working Reserve, chief.

Farm Service Division.—A. L. Barkman, of Missouri, chief.

For several months the Department of Labor has been quietly working to equip the Federal Employment Service to handle efficiently the problems of supplying war labor. Funds appropriated specially by Congress or allotted by the President from his war-emergency fund are believed to be sufficient to conduct the Service until the end of the fiscal year.

The Service is now covering the entire continent with a network of labor exchanges. Federal, State, and municipal employment offices and the facilities of the various State councils of defense are being utilized and made coordinate parts of this comprehensive Federal machine. Complete centralization and unification of all efforts to supply labor are thus effected, eliminating all duplication and waste of effort, time, and expenditures. There are already more than 200 such exchanges in operation, and the immediate establishment of 50 more in various parts of the country is now being arranged.

With these labor exchanges as the medium for the distribution of workers and their placement in the war industries a vast reservoir of skilled and boy workers to meet the additional demands of the essential industries is being created by the United States Public Service Reserve and the United States Boys' Working Reserve, both comprising a division of the Federal Employment Service. The reserves are, in effect, the Service's "recruiting service." Already about 30,000 skilled workers have been enrolled in the Public Service Reserve and approximately 150,000 boys between

the years of 16 and 21 in the Boys' Working Reserve. Both bodies are now placing men and boys in industrial service through the machinery of the Employment Service.

In connection with the work of the Service and its reserves, a corps of traveling examiners is being created. These examiners will cover the country and determine the fitness of applicants for shipbuilding and other war industrial work. They will have the cooperation of the enrolling officers of the Public Service Reserve throughout the country, employers, labor leaders, chambers of commerce, and other business organizations, and patriotic persons generally. By means of these examiners it is anticipated that few men will be placed in positions for which they are not fitted, and there will be real conservation of the available supply of skilled workers. "Maximum service from every worker" is a cardinal principle of the reorganized Employment Service.

The new organization of the United States Employment Service, and particularly its operation as a separate arm of the Department of Labor, meets with the full approval of both employers and employees. Since the entrance of the United States into the War, the American Federation of Labor, speaking for organized labor, and the Chamber of Commerce of the United States, representing employers and the Nation's business men generally, have officially urged the action that has just been taken. Many of the international unions affiliated with the American Federation of Labor recently have pledged assistance to the Public Service Reserve in the enrollment of their members and their placement in "war jobs" as they arise.

The following statement is made by John B. Densmore, director of the newly organized Employment Service:

The United States Employment Service can successfully meet the problem of war-labor supplying if full support is given by both workers and employers. Our task will be made easier when the country as a whole realizes that a national labor shortage is a myth and that a conscription of labor is both impracticable and unnecessary.

There is no real labor shortage. While there exists a scarcity of workers in a few of the highly skilled and unusual trades, the apparent general labor shortage, especially in Pennsylvania and other industrial States, has been due to a lack of distribution facilities. In some sections there are large surpluses of workers, and these will be taken to the shorthanded regions as quickly as possible. Our national labor problem is primarily one of proper distribution, and the new organization of the Employment Service provides adequate facilities. The leading trades-unions and business organizations of the country are now cooperating with the United States Employment Service, and will assist in the distribution of labor and in the enrollment of workers for "war service" in the United States Public Service Reserve.

EFFECT OF DILUTION OF LABOR IN A SHELL FACTORY.

The following article on the effect of dilution of labor in one of the national shell factories of Great Britain is reprinted, by special permission, from the Dilution of Labor Bulletin, published by the British Ministry of Munitions, December, 1917.

Experience has frequently shown how uneconomical it is to employ a highly skilled mechanic on work of a repetition nature. Always supposing that there is no conscious restriction of output on the man's part, his pride of craftsmanship impels him to spend time in producing a finish and an accuracy greater than the nature of the work demands. Moreover, as a rule he does not take kindly to the easy and fool-proof methods of manufacture which give no opportunity for the use of his experience and trained intelligence. It is to the national interest, and should be to the man's own interest, that he should be employed on work which really needs his skill, and which can not be done without it.

The unskilled man or woman, when introduced to a job, has nothing to unlearn; and provided that the operations have been laid out systematically beforehand, as they should have been, the unskilled operator has very little to learn. In view of what has been said above, therefore, it is not surprising that with proper tools and supervision, he will frequently, and one might perhaps say generally, attain an output which the skilled supervisor himself could not equal. It must not always be assumed that this is discreditable to the skilled mechanic. It is, however, always to his credit that he can train unskilled labor to such a degree of efficiency, and it proves conclusively that his proper place is that of a charge hand rather than that of a machine operator.

The following case, recorded by one of the national shell factories, may be mentioned as one example out of many where a markedly greater output has resulted from the substitution of unskilled labor for skilled labor. The factory in question is producing 9.2-inch Mark IX H. E. shell, and the boring of the interior of the shell is done in three distinct operations, namely, rough-boring the body, rough-boring the head, and finish-boring the complete shell. The work is done on Lang boring lathes, and the appended table gives the comparison between the output of skilled men and women under identical conditions.

TABLE I.

Operation.	Average output per 10-hour shift.	
	Skilled men.	Women.
Rough-boring parallel part of body..	8	First week..... 7 After 6 weeks..... 17 After 10 weeks..... 20 At present..... 24
Rough-boring head to blend with body.	11	After 1 week..... 8½ After 6 weeks..... 14 After 10 weeks..... 18 After 14 weeks..... 20 At present..... 24
Finish-boring shell.....	10	After 1 week..... 10 After 5 weeks..... 14 After 9 weeks..... 16 At present..... 24

It will be seen that whereas the complete boring of the shell required 3.16 machine-hours when done by skilled men, it was accomplished in 3.6 hours by women after only one week's practice, and within two or three months the women had reduced

the time to 1.25 hours, thus increasing the output to two and a half times its previous figure.

Several months ago, as a result of the visit of officers of the ministry to the factory in question, 73 skilled men were enrolled as war-munitions volunteers and transferred to other works. Unskilled and semiskilled men to the number of 133 were released, and the places of all the above men were taken by females.

Table II shows the change that has been brought about since the beginning of the year in the 9.2-inch shell shop and the 4.5-inch shell shop and the copper-band shop, respectively. The figures speak for themselves, but the greatly increased output in both shops, corresponding with the increase in the percentage of women and discharged soldiers employed, is worthy of special notice.

TABLE II.
9.2-inch shell shop.

	January, 1917.	October, 1917.	Per cent of increase (+) or decrease (-).
Men (excluding discharged soldiers).....	123	61	- 50.4
Discharged soldiers.....		17	
Women.....	79	137	+ 73.4
Boys.....		10	
Total.....	202	225	+ 11.4
Shell output per month.....	950	2,369	+149.3
Shell output per employee.....	4.7	10.5	+123.4

4.5-inch shell shop.

Men (excluding discharged soldiers).....	164	83	- 49.4
Discharged soldiers.....		17	
Women.....	358	530	+ 48.1
Boys.....	19	2	- 89.5
Total.....	541	632	+ 16.8
Shell output per month.....	19,000	30,000	+ 57.9
Shell output per employee.....	35.1	47.4	+ 35.0

Copper-band department.

Men (excluding discharged soldiers).....	38	32	- 15.7
Discharged soldiers.....		5	
Women.....	85	124	+ 45.9
Boys.....		11	
Total.....	123	172	+ 39.8
Output per month (all sizes).....	160,000	392,000	+145.0
Output per employee.....	1,300	2,284	+ 76.5

With regard to the output of 9.2-inch shells, it will be observed that the proportion of women to total employees is now practically 61 per cent. This is a very creditable proportion, and contrasts very favorably with the conditions existing in many shops engaged upon the same class of shell. Dilution, however, is still proceeding and it is confidently anticipated that an output of 3,000 shells per month will be obtained with a still higher proportion of women and discharged soldiers. Excellent as the present position and the future prospects are, the place of honor is probably held by the 9.2-inch shell factory referred to in the November issue of the Bulletin. In this factory, where women operate the whole of the machines and do all the laboring, the

proportion of women to total employees is just on 90 per cent and the output of completed shell per employee per month is over eighteen.

In the 4.5-inch shell shop of the national factory under consideration the machines were not originally designed for shell work and are in a bad state of repair. Moreover, during the period under review over 15,000 shells of exceptionally hard steel have had to be made, otherwise the increase of output would have been greater even than it has been.

The facts given in this article should be of material assistance in convincing engineers that there is nothing incompatible in the apparently contradictory duties laid upon them in the national interest, firstly to increase the output of munitions, secondly to release every skilled and able-bodied man for work which only such men can do, and lastly but not least important, to find remunerative occupation for discharged soldiers "broken in our wars."

BRITISH GOVERNMENT'S ATTITUDE ON JOINT STANDING INDUSTRIAL COUNCILS.¹

The British War Cabinet has decided to adopt the Whitley report on joint standing industrial councils as a part of the policy which it hopes to carry into effect in the field of industrial reconstruction. This report proposed the establishment of such councils in the various industries where they do not already exist, to be composed of representatives of employers and employees, for the purpose of considering matters affecting the industry, and particularly the establishment of a closer cooperation between employers and workers. The report was published in full in Bulletin 237 of this bureau. To answer certain questions which have been raised regarding the purpose of establishing industrial councils, the minister of labor, under date of October 20, 1917, addressed the following letter to the leading employers' associations and trade-unions, explaining in full the Government's view of the proposals of the report:

SIR: In July last a circular letter was addressed by the Ministry of Labor to all the principal employers' associations and trade-unions asking for their views on the proposals made in the report of the Whitley committee on joint standing industrial councils, a further copy of which is inclosed. As a result of the replies which have been received from a large number of employers' organizations and trade-unions generally favoring the adoption of those proposals, the War Cabinet have decided to adopt the report as part of the policy which they hope to see carried into effect in the field of industrial reconstruction.

In order that the precise effect of this decision may not be misunderstood, I desire to draw attention to one or two points which have been raised in the communications made to the ministry on the subject, and on which some misapprehension appears to exist in some quarters.

In the first place, fears have been expressed that the proposal to set up industrial councils indicates an intention to introduce an element of State interference, which has hitherto not existed in industry. This is not the case. The formation and constitution of the councils must be principally the work of the industries themselves.

¹ Great Britain, Ministry of Labor. Industrial Reports. No. 1. Industrial councils. The Whitley report, together with the letter of the minister of labor explaining the Government's view of its proposals. 1917. 19 pp. Price 1d.

Although, for reasons which will be explained later, the Government is very anxious that such councils should be established in all the well-organized industries with as little delay as possible, they fully realize that the success of the scheme must depend upon a general agreement among the various organizations within a given industry and a clearly expressed demand for the creation of a council. Moreover, when formed, the councils would be independent bodies, electing their own officers, and free to determine their own functions and procedure with reference to the peculiar needs of each trade. In fact, they would be autonomous bodies, and they would, in effect, make possible a larger degree of self-government in industry that exists to-day.

Secondly, the report has been interpreted as meaning that the general constitution which it suggests should be applied without modification to each industry. This is entirely contrary to the view of the Government on the matter. To anyone with a knowledge of the diverse kinds of machinery already in operation, and the varying geographical and industrial conditions which affect different industries, it will be obvious that no rigid scheme can be applied to all of them. Each industry must therefore adapt the proposals made in the report as may seem most suitable to its own needs. In some industries, for instance, it may be considered by both employers and employed that a system of works committees is unnecessary, owing to the perfection of the arrangements already in operation for dealing with the difficulties arising in particular works between the management and the trade-union officials. In other works committees have done very valuable work where they have been introduced and their extension on agreed lines deserves every encouragement. Again in industries which are largely based on district organizations it will probably be found desirable to assign more important functions to the district councils than would be the case in trades which are more completely centralized in national bodies. All these questions will have to be thrashed out by the industries themselves and settled in harmony with their particular needs.

Thirdly, it should be made clear that representation on the industrial councils is intended to be on the basis of existing organizations among employers and workmen concerned in each industry, although it will, of course, be open to the councils, when formed, to grant representation to any new bodies which may come into existence and which may be entitled to representation. The authority, and consequently the usefulness of the councils will depend entirely on the extent to which they represent the different interests and enjoy the whole-hearted support of the existing organizations, and it is therefore desirable that representation should be determined on as broad a basis as possible.

Lastly, it has been suggested that the scheme is intended to promote compulsory arbitration. This is certainly not the case. Whatever agreements may be made for dealing with disputes must be left to the industry itself to frame, and their efficacy must depend upon the voluntary cooperation of the organizations concerned in carrying them out.

I should now like to explain some of the reasons which have made the Government anxious to see industrial councils established as soon as possible in the organized trades. The experience of the War has shown the need for frequent consultation between the Government and the chosen representatives of both employers and workmen on vital questions concerning those industries which have been most affected by war conditions. In some instances different Government departments have approached different organizations in the same industry, and in many cases the absence of joint representative bodies which can speak for their industries as a whole and voice the joint opinion of employers and workmen, has been found to render negotiations much more difficult than they would otherwise have been. The case of the cotton trade, where the industry is being regulated during a very difficult time by a joint board of control, indicates how greatly the task of the State can be alleviated

by a self-governing body capable of taking charge of the interests of the whole industry. The problems of the period of transition and reconstruction will not be less difficult than those which the War has created, and the Government accordingly feel that the task of rebuilding the social and economic fabric on a broader and surer foundation will be rendered much easier if in the organized trades there exist representative bodies to which the various questions of difficulty can be referred for consideration and advice as they arise. There are a number of such questions on which the Government will need the united and considered opinion of each large industry, such as the demobilization of the forces, the resettlement of munition workers in civil industries, apprenticeship (especially where interrupted by war service), the training and employment of disabled soldiers, and the control of raw materials; and the more it is able to avail itself of such an opinion the more satisfactory and stable the solution of these questions is likely to be.

Further, it will be necessary in the national interest to insure a settlement of the more permanent questions which have caused differences between employers and employed in the past, on such a basis as to prevent the occurrence of disputes and of serious stoppages in the difficult period during which the problems just referred to will have to be solved. It is felt that this object can only be secured by the existence of permanent bodies on the lines suggested by the Whitley report, which will be capable not merely of dealing with disputes when they arise, but of settling the big questions at issue so far as possible on such a basis as to prevent serious conflicts arising at all.

The above statement of the functions of the councils is not intended to be exhaustive, but only to indicate some of the more immediate questions which they will be called upon to deal with when set up. Their general objects are described in the words of the report as being "to offer to workpeople the means of attaining improved conditions of employment and a higher standard of comfort generally, and involve the enlistment of their active and continuous cooperation in the promotion of industry." Some further specific questions, which the councils might consider, were indicated by the committee in paragraph 16 of the report, and it will be for the councils themselves to determine what matters they shall deal with. Further, such councils would obviously be the suitable bodies to make representations to the Government as to legislation, which they think would be of advantage to their industry.

In order, therefore, that the councils may be able to fulfill the duties which they will be asked to undertake, and that they may have the requisite status for doing so, the Government desire it to be understood that the councils will be recognized as the official standing consultative committees to the Government on all future questions affecting the industries which they represent, and that they will be the normal channel through which the opinion and experience of an industry will be sought on all questions with which the industry is concerned. It will be seen, therefore, that it is intended that industrial councils should play a definite and permanent part in the economic life of the country, and the Government feels that it can rely on both employers and workmen to cooperate in order to make that part a worthy one.

I hope, therefore, that you will take this letter as a formal request to your organization on the part of the Government to consider the question of carrying out the recommendations of the report so far as they are applicable to your industry. The Ministry of Labor will be willing to give every assistance in its power in the establishment of industrial councils, and will be glad to receive suggestions as to the way in which it can be given most effectively. In particular, it will be ready to assist in the convening of representative conferences to discuss the establishment of councils, to provide secretarial assistance and to be represented, if desired, in a consultative capacity at the preliminary meetings. The Ministry will be glad to be kept informed of any progress made in the direction of forming councils. Although the scheme is only

intended, and indeed can only be applied, in trades which are well organized on both sides, I would point out that it rests with those trades which do not at present possess a sufficient organization to bring it about if they desire to apply it to themselves.

In conclusion, I would again emphasize the pressing need for the representative organizations of employers and workpeople to come together in the organized trades and to prepare themselves for the problems of reconstruction by forming councils competent to deal with them. The Government trust that they will approach these problems not as two opposing forces each bent on getting as much and giving as little as can be contrived, but as forces having a common interest in working together for the welfare of their industry, not merely for the sake of those concerned in it, but also for the sake of the nation which depends so largely on its industries for its well-being. If the spirit which has enabled all classes to overcome by willing cooperation the innumerable dangers and difficulties which have beset us during the War is applied to the problems of reconstruction, I am convinced that they can be solved in a way which will lay the foundation of the future prosperity of the country and of those engaged in its great industries.

I am, sir, your obedient servant,

GEO. H. ROBERTS.

AGREEMENT BETWEEN ENGINEERING EMPLOYERS' FEDERATION AND TRADE-UNIONS IN GREAT BRITAIN.

In the latter part of 1917 a serious strike of airplane workers occurred at Coventry, England, in which the matter of the appointment and functions of shop stewards became acute. An agreement was finally entered into between the Engineering Employers' Federation and the trade-unions concerned, the text of which, taken from the London Morning Post of December 24, 1917, has been sent by the American consul general at London to the State Department and forwarded to this bureau. It appears that the Amalgamated Society of Engineers, the Scientific Instrument Makers' Union, and the Enginemen's Union did not subscribe to the terms, their representatives not being present when the settlement was drawn up, but it is understood by the Engineering Employers' Federation that the two last-mentioned unions are willing to agree to the settlement, although the Amalgamated Society of Engineers still remains outside. The agreement covering regulations regarding the appointment and functions of shop stewards is as follows:

With a view to amplifying the provisions for avoiding disputes it is agreed:

1. The workmen who are members of the above-named trade-unions, employed in a federated establishment, may appoint representatives from their own number to act on their behalf in accordance with the terms of the agreement.
2. The representatives shall be known as shop stewards.
3. The method of election of shop stewards shall be determined by the trade-unions concerned, and each trade-union parties to this agreement may appoint shop stewards.
4. The names of the shop stewards and the shop or portion of a shop in which they are employed and the trade-union to which they belong shall be intimated officially by the trade-union concerned to the management on election.

5. Shop stewards shall be subject to the control of the trade-unions, and shall act in accordance with the rules and regulations of the trade-unions and agreements with employers so far as these affect the relation between employers and workpeople.

6. In connection with this agreement shop stewards shall be afforded facilities to deal with questions raised in the shop or portion of a shop in which they are employed. In the course of dealing with these questions they may, with the previous consent of the management (such consent not to be unreasonably withheld) visit any other shop or portion of a shop in the establishment. In all other respects they shall conform to the same working conditions as their fellow workmen.

7. Employers and shop stewards shall not be entitled to enter into any agreement inconsistent with agreements between the Engineering Employers' Federation or local associations and the trade-unions.

8. The function of shop stewards, so far as they are concerned with the avoidance of disputes, shall be exercised in accordance with the following procedure:

(a) A workman or workmen desiring to raise any question in which he or they are directly concerned shall in the first instance discuss the same with his or their foreman. (b) Failing settlement, the question shall, if desired, be taken up with the management by the appropriate shop steward and one of the workmen directly concerned. (c) If no settlement is arrived at the question may, at the request of either party, be further considered at a meeting to be arranged between the management and the appropriate shop steward, together with a deputation of the workmen directly concerned. At this meeting the organizing district delegate may be present, in which event a representative of the employers' association shall also be present. (d) The question may thereafter be referred for further consideration in terms of the provisions for avoiding disputes. (e) No stoppage of work shall take place until the question has been fully dealt with in accordance with this agreement and with the provisions for avoiding disputes.

9. In the event of a question arising which affects more than one branch of trade or more than one department of the works the negotiation thereon shall be conducted by the management with the shop stewards concerned. Should the number of shop stewards concerned exceed seven a deputation shall be appointed by them, not exceeding seven, for the purpose of the particular negotiation.

10. Negotiations under this agreement may be instituted either by the management or by the workmen concerned.

11. The recognition of shop stewards is accorded in order that a further safeguard may be provided against disputes arising between the employers and their workpeople.

12. Any questions which may arise out of the operation of this agreement shall be brought before the executive of the trade-union concerned or the federation as the case may be.

DECREASE IN NIGHT WORK OF WOMEN IN FRANCE.¹

The need for intensifying the production of war munitions and material has, since the beginning of the war, led in France to a relaxation of the laws and regulations concerning the maximum duration of the working day, concerning the labor of women and children, and concerning night work. Especially as regards night work for women, frequent exemptions from the law have been

¹ From report of C. W. A. Veditz, American Commercial Attaché, Paris, to Department of Commerce.

granted. But serious social disadvantages soon became apparent as the result of these exemptions, and the public authorities began restricting their number.

A circular dated June 29, 1916, prescribed certain limits for the employment of women at night work. Then, gradually, employers themselves undertook to restrict further the employment of female labor at night. The result, as shown by an investigation begun by the Ministry of Labor on May 31, 1917, is that female labor at night has been reduced almost to insignificant proportions.

The investigation comprised 787 private industrial establishments, employing at night 58,784 women, or 36 per cent of the total number of women working in these establishments. Of the above number, 519 were under 16 years of age, and 1,576 were between 16 and 18 years of age. The average duration of night work was 10 hours. It is reported that improvements have been made everywhere in the conditions and circumstances affecting the night work of the women. Husband and wife are employed at the same hours, so that they may take their meals together; there are eight-hour shifts, so that night work is required of each shift only one week in three; women are intrusted with the lighter kinds of work; the rest periods have been made more numerous; and female workers living in the same quarter of the town are grouped together in the factory.

In the belief that in the interest of the family further modifications might be made in the same direction without jeopardizing the requirements of the national defense, the committee in charge of female labor conditions gave expression to a certain number of desiderata which will soon be carried into effect. It is urged that no girls or women under 18 years of age be employed at night, and that night work for women in no case be permitted to last longer than 10 hours. It is also urged that night work for women of all ages, tolerated since the beginning of the war by suspension of the rules on this subject, shall be suppressed whenever the conditions affecting the supply of raw materials, of motive power, and of labor, are such as to make it possible to obtain the same output by means of day labor alone; that when the output of a factory is decreased night work be curtailed first of all for women; that whenever the hours of labor are decreased, the reduction apply first to night work; that so far as possible, mobilized married laborers be sent by preference to shops and factories in which their wives are engaged.

It is evident from these steps that the French authorities are giving serious thought to the readjustment of the labor situation, especially as it affects women employed in munitions works, that will be necessary after the cessation of hostilities.

PROVISION FOR DISABLED SOLDIERS AND CIVILIANS.

PROBLEM OF THE HANDICAPPED MAN IN INDUSTRY.

BY CARL HOOKSTADT.

The reemployment of the partially disabled and handicapped men in industry presents many complex and difficult problems. Assuming that an injured man has received full compensation benefits in accordance with the law and has been functionally restored and industrially reeducated, what then? From the industrial and compensation viewpoint he constitutes an extrahazardous risk. Not only is he more liable to injury and to be a greater source of danger to his fellow workmen than a normal man, but the consequences resulting from an injury would be greatly increased. The loss of an eye of a normal worker causes disability variously estimated at 30 per cent, and compensation is granted usually for 100 weeks. The loss of the second eye of a man who had already lost one eye would result in permanent total disability, which is usually compensable for life. Under the circumstances discrimination against the employment of such physically defective men would be a natural consequence. In fact, such discrimination has been and is being constantly practiced by employers throughout the country. However, assuming that the partially disabled would not be discriminated against, what effect would the employment of such men have upon wages? Would it result in lowering the labor standards? Would it mean the displacement of the normal workman by the crippled workman? Instances are on record where standard workers have been displaced by crippled workers at lower wages. Furthermore, the reemployment of the partially disabled men should be earnestly considered in conjunction with the whole problem of employment and unemployment of normal workers. Surely, unemployment of the physically normal is just as important a social problem as the unemployment of the physically defective. Organized labor may well look askance at any scheme of rehabilitation which does not also include a plan for the protection of labor standards. All these questions must be considered in working out a practical and equitable plan.

The foregoing problems are primarily concerned with the industrially disabled. More difficulties arise when the military cripples are considered. At the present time the Federal Government through its Bureau of War-Risk Insurance pays compensation benefits to our soldiers and sailors disabled in the service, and provision has also been made for their functional and professional rehabilitation. Presumably compensation payments will continue until the men are replaced in industrial and commercial life. But again we are confronted with the present disinclination and the probable future refusal to give employment to such men. Sentiment and patriotic ardor can not be relied upon to solve the problem. It has been suggested that in order to prevent industrial discrimination against disabled men a premium be placed upon their employment by relieving the employer of the extrahazardous risks which such employment would entail.

Very few of the States have attempted a solution of this problem. The provisions of the 40 State and Territorial compensation laws relating to compensation for second or successive injuries are as follows: Eight States ¹ provide that compensation for second injuries shall be computed on the basis of the disability caused by that particular injury without reference to previous injuries. Fifteen States ² provide that compensation for second injuries shall be determined by subtracting the disability caused by the prior injury from the whole disability caused by subsequent injury. The phraseology used in some of the laws, however, is indefinite and susceptible of more than one interpretation. Of these 15 States, 4—Kansas, Kentucky, Nevada, and Wyoming—definitely state that compensation for subsequent injuries shall be based upon the disability caused by such injuries minus the disability caused by previous injuries; 4 States—Maryland, Montana, Oregon, and Washington—provide that compensation shall be determined in accordance with the combined effect of the injuries and past compensation paid; 2—Illinois and South Dakota—state that compensation shall be apportioned according to the proportion of incapacity caused by the respective injuries; while 5—Maine, Michigan, Oklahoma, Rhode Island, and Wisconsin—provide merely that compensation shall be based on the reasonable earning capacity of the employee at the time of the later injury; but in Wisconsin greater compensation is awarded for second injuries (eye and hearing only) than for primary injuries. Seventeen States ³ make no specific provision in this

¹ California, Colorado, Indiana, Delaware, Minnesota, Nebraska, New York, and Texas.

² Illinois, Kansas, Kentucky, Maine, Maryland, Michigan, Montana, Nevada, Oklahoma, Oregon, Rhode Island, South Dakota, Washington, Wisconsin, and Wyoming.

³ Alaska, Arizona, Connecticut, Hawaii, Idaho, Iowa, Louisiana, Massachusetts, New Hampshire, New Jersey, New Mexico, Ohio, Pennsylvania, Porto Rico, Utah, Vermont, and West Virginia.

respect, but undoubtedly the administrative commissions or courts have ruled upon the question in cases coming before them for adjudication. In Massachusetts and West Virginia, compensation is granted for the entire disability resulting from the subsequent injury. For example, compensation for total permanent disability would be awarded for the loss of a second eye.

A better conception of the different provisions in force in the various States may perhaps be obtained by way of illustration. What would be the effect, for example, of the loss of the second hand in the several classes of States. In Indiana compensation would be limited to 55 per cent of the weekly wages for 150 weeks. In New York the employee would receive 66 $\frac{2}{3}$ per cent of his weekly wages for 244 weeks and at the expiration of this period an additional 66 $\frac{2}{3}$ per cent for life; such additional compensation to be paid out of a special fund and not be borne by the employer in whose employment the injury was sustained. In Kentucky the employee would be entitled to 65 per cent of weekly wages for permanent total disability (416 weeks) minus the compensation for loss of the first hand (150 weeks) or 266 weeks. While in Massachusetts the employee would receive 66 $\frac{2}{3}$ per cent of his wages for 50 weeks for the loss of the hand; 66 $\frac{2}{3}$ per cent of wages additional for total disability during the healing period; and a further 66 $\frac{2}{3}$ per cent of his *wage loss* for partial disability for not exceeding 500 weeks.

From the viewpoint of workmen's compensation, the disabled and handicapped workman presents two main problems: First, on what basis should a workman already partially disabled be compensated when he sustains a second injury which produces greater disability than would have resulted had he not had the previous injury? Second, to what extent will the future wages of such disabled workmen and the discrimination against them, in their endeavor to obtain employment in industry, be affected by the statutory liability of the employer provided for in the compensation law?

As to the first problem: The whole purpose of compensation legislation would be defeated if injured employees are not to be compensated at least in accordance with their loss of earning capacity. It makes no difference, for example, to a totally disabled workman whether the disability was caused by a single accident or by several successive accidents. The ability of an armless man to earn a livelihood is not affected by the fact as to whether he lost both his arms at once or one at a time. He is totally and permanently disabled and compensation should be based upon this fact.

As to the second problem: It is undoubtedly true that there are many employers who, from unselfish and patriotic motives, will employ disabled men even if such men will become extra hazardous

risks and their employment result in financial loss. But the future welfare of our industrial and military cripples can not for a moment be left to the mercy and generosity of the employers of the country, no matter how exalted their motives or how generous their practices. Common economic justice demands that these men have full legal protection.

What then are some of the practical methods through which justice to the worker and equity to the employer can be secured. The New York compensation law is the only act in which an effort has been made to solve this problem. This law provides that an employee who is suffering from a previous disability shall not receive compensation for a later injury in excess of the compensation allowed for such injury when considered by itself and not in conjunction with the previous disability. However,

If an employee who has previously incurred permanent partial disability through the loss of one hand, one arm, one foot, one leg, or one eye incurs permanent total disability through the loss of another member or organ, he shall be paid, in addition to the compensation for permanent partial disability provided in this section and after the cessation of the payments for the prescribed period of weeks, special additional compensation for the remainder of his life to the amount of 66 $\frac{2}{3}$ per centum of the average weekly wage earned by him at the time the total permanent disability was incurred. Such additional compensation shall be paid out of a special fund created for such purpose in the following manner: The insurance carrier shall pay to the State treasurer for every case of injury causing death in which there are no persons entitled to compensation the sum of \$100. The State treasurer shall be the custodian of this special fund, and the commission shall direct the distribution thereof.¹

One method, therefore, would be the extension of the New York plan to all the other compensation States; but instead of limiting the scope to certain major injuries, as provided for in New York, it should be increased to include all permanent partial disabilities. The liability of an employer for compensation for disability caused by a second injury could be limited to the disability resulting from that particular injury without reference to any prior disabilities. Compensation for the remaining disability could be paid out of a special fund. This fund could be created according to the New York plan, or it could be established by requiring all employers in the State to contribute a small premium sufficient to meet the needs. Such premiums are at present required from employers in Ohio and West Virginia, but for other purposes. The law of Idaho also provides that in fatal cases involving no dependents, the employer must pay \$1,000 into the industrial administration fund.

Another suggestion, rather sweeping and drastic in character, would be to prohibit employers from carrying their own risk and compelling every employer to insure either in the State insurance

¹ New York compensation act, sec. 15, par. 7.

fund or in private casualty companies. Undoubtedly, discrimination against the employment of disabled workers is more prevalent among self-insurers than among insured employers, because there is a greater and more direct connection between the accident and the cost of compensation. If all employers are insured, the employment of the disabled will be reflected in a general increased premium rate, but the individual employer would not be penalized because of the employment of cripples. Discrimination against such employers by insurance companies could be prevented by appropriate legislation.

The above plans, of course, would be applicable only to States having compensation laws and then only to those employments covered by these laws. Eleven States and the District of Columbia have no workmen's compensation laws. Furthermore, only one or two of the State laws cover agriculture and domestic service, while over one-third do not include the professions, trades, and other non-hazardous employments. On the other hand, our soldiers are drawn from every State in the Union and from every walk of life, and this fact must be taken into account in the formulation of an adequate and just plan.

The United States Bureau of War-Risk Insurance recently called a conference composed of Federal and State compensation officials, representatives of labor organizations and insurance carriers, and other experts in workmen's compensation. As a result of this conference a committee was appointed to draw up two plans embodying the conclusions reached.

The first plan is simple. Its underlying principle is that the disabled soldiers and sailors are wards of the Nation. It provides that the Federal Government shall pay the entire costs of compensation for injuries, including those subsequently sustained in civil life as well as those sustained in the military service. This would place a premium upon the employment of these men and would eliminate any fear of discrimination. It has the further advantage of not being dependent upon State compensation laws. One difficulty, however, is that such disabled men will be entitled to compensation under the State laws for subsequent injuries irrespective of whether the Federal Government pays them for such injuries or not. Nor is it clear whether they waive their right to State compensation, because most of the State laws absolutely forbid waivers of this kind.

The second plan provides that the cost of subsequent injuries shall be shared jointly by the Federal Government and the State, or rather the employers in the State. The employer's liability for compensation shall be limited to the disability caused by the subsequent

injury alone without reference to any prior disabilities. The amounts thus contributed by the several States would vary, however, in accordance with the varying provisions of the laws. Compensation for the remaining disability shall be paid by the United States out of a special fund. In the case of awards for damages in the non-compensation States the Federal Government would bear its proportionate share of the jury award, and the employer would be subrogated to the employee's rights for claims against the United States special fund. The advantage of this plan is that under it the industry bears its share of the cost of industrial accidents, and it would be free of the charge of class legislation. On the other hand, it would give rise to numerous administrative difficulties, both Federal and State, and would, in addition, require amendatory State legislation.

ECONOMIC CONSEQUENCES OF PHYSICAL DISABILITY.

The Red Cross Institute for Crippled and Disabled Men was established for the purpose of training and readjusting to industry men permanently crippled by the War or injured in the course of their employment. To anticipate the need of practical knowledge of how to deal with these problems of industrial readjustment, an investigation was undertaken by the institute during the summer of 1917 into the experiences of cripples in civil life. A recently issued publication entitled "Economic Consequences of Physical Disability; A Case Study of Civilian Cripples in New York City,"¹ describes in detail the methods employed and results obtained by this investigation.

Records of 361 men between the ages of 16 and 55 whose injuries had occurred since January 1, 1915, were obtained from various sources. The investigators visited 20 hospitals in New York City which kept records of amputations, and chose 327 cases for visitation. Of this number, case histories of only 129 were actually obtained. Records of 332 men receiving compensation for injuries which occurred in the course of their employment were obtained from the State Industrial Commission. Most of these were amputation cases. Of this number 172 furnished case histories. The Interborough Rapid Transit Co. furnished records of 10 cases of men injured in employment and receiving compensation and case histories were secured from nine of these.

In addition to the above cases, 33 met incidentally by the investigators in their rounds furnished data and the employment bureau

¹ The Economic Consequences of Physical Disability; A Case Study of Civilian Cripples in New York City, by John Culbert Faries, of the Staff of the Red Cross Institute. New York, Red Cross Institute for Crippled and Disabled Men, 1918. 11 pp. (Publication Ser. 1, no. 2.)

for the handicapped conducted by the Federation of Associations for Cripples supplied the remaining 18 of the 361 cases studied.

The records of the compensation cases were particularly good, since they revealed the man's economic condition. The hospital cases yielded the largest number of men who had not adjusted themselves to industry. Sixty-four of the 129 cases were unemployed, while only 41 of the 172 industrial commission records showed cases of unemployment.

Records were made of the economic experiences of the men visited, including their industrial history before and after accident and any other facts bearing on the problem of readjustment as obtained from the man himself, his family or friends.

The infinite variety of experiences encountered made it impossible to arrive at formulas for dealing with the crippled, but stories of men who have succeeded in spite of handicaps and of those who have not, were found to be suggestive of what may be attempted for others similarly situated.

The following section of the report seems sufficiently suggestive to warrant its reproduction:

The cases chosen for study were mostly those who had suffered an amputation, either by accident or as the result of disease, or who had lost the use of a member. As the loss of a hand or arm has a different import in industry from the loss of a foot or leg, it will be useful to divide injuries into those to the upper limbs and those to the lower.

Upper limb injuries may be subdivided into those to fingers, hands, and arms. This classification is not accurate, for the function of the hand is abridged by the loss of any finger. Similarly with the foot. But, in general, when a case is put in the class of finger injuries it indicates that the disability was not such as to entirely destroy the use of the hand. Cases classified as hand injuries usually involve extensive injury to the hand, or its amputation. The same may be said of the foot and toes.

TABLE I.

	Cases.	Em- ployed.	Unem- ployed.	Ampu- tations.	Artificial limb.
Upper limb injuries:					
Fingers.....	158	133	25	All.	.....
Hands.....	36	23	13	9	2
Arms.....	32	17	15	18	7
Total.....	226	173	53	27	9
Lower limb injuries:					
Toes.....	11	9	2	All.	.....
Feet.....	24	9	15	14	5
Legs.....	92	35	57	65	38
Total.....	127	53	74	79	43
Miscellaneous.....	8	3	5	.....	.....
Grand total.....	361	229	132	106	52

Table I classifies, according to the member affected, the 361 cases whose stories were secured. The largest proportion of finger cases came from the records of the State Industrial Commission and were the results of machine accidents.

Of the 158 finger cases, practically all of which involved amputation, 60 men (38 per cent) were employed after the injury by their former employers at the same or higher wages. They did not always return to the same operation as before—in many instances being given more suitable work. Higher pay was usually the result of a general increase in the scale of wages. Two returned to piecework but found that with their handicaps they could not turn out as much work as formerly and so could not make so high wages.

Seventy-one other finger cases had found some employment, leaving only 25, or about 16 per cent, unemployed at the time they were visited. The finger and toe cases show the smallest proportion unemployed, the proportion of the latter being 18 per cent.

Of the cases of injury to hands, 13 out of 36 were unemployed. Nine of the injuries resulted in amputations with the following results: A former switchman was reemployed by the same company at lower wages as a machinist's helper; a former baker took, with poor success, to peddling pretzels on the street; another baker found employment in a stable; one young man who lost his hand in a machine is studying in an engineering school; the other five were unemployed.

There were 32 cases of injuries to arms, 17 had found employment and 15 had not. Eighteen were cases involving the amputation of the whole or part of the arm. The industrial results in these 18 cases were as follows: 3 were reemployed—1 at the same and 2 at reduced wages; 5 had found work as watchmen or messengers at low wages; 10 were unemployed. Only 1 of these 18 had suffered no diminution in his wages, and this was due, it was quite evident, to his employer's consideration. All of the others had either accepted inferior positions or were idle.

Out of a total of 226 injuries to the upper limbs 173 (76.5 per cent) had found employment, while 53 had not.

The toe cases were unimportant from the viewpoint of industrial readjustment, for the only 2 cases unemployed were still under medical treatment.

The 24 foot cases presented a total of 15 unemployed, 9 of whom were minus a foot. Five others who had lost a foot had some employment, but at reduced wages.

The 92 leg cases involved the largest proportion of amputations and the largest proportion of unemployment. Fifty-seven were idle and 65 had suffered amputations. Of those losing a leg, only three had returned to work for their former employers, as follows: One was a billposter and now folds paper at a lower wage; one was an upholsterer and with the aid of an artificial leg is back at the same work at the same wages; the third, who lost his leg while operating a wire-pulling machine, expected to be reemployed at a different operation, but probably at the same wages. Nineteen more of those losing a leg had found employment of one kind or another.

Amputations are great economic levelers. As will be seen by the following list of employments before and after amputations, the skilled electrician, the engineer, the baker, are all reduced to the level of unskilled labor:

HANDS.

Before.

Switchman.
Baker.
Machine hand.
Baker.

After.

Machinist's helper.
Peddling pretzels.
Studying.
Stableman.

ARMS.

Engineer.
Machine hand.
Machine hand.
Driver.
Electrician.
Machine hand.
Ferry hand.¹
Unknown.¹

Helper in storeroom.
Same.
Messenger boy.
Watchman.
Watchman.
Delivery boy.
Clerk.
Watchman.

FEET.

Garment worker.
Checker.
Deck hand.
Longshoreman.
Unknown.¹

Unknown.
Timekeeper.
Assistant cook.
Elevator operator.
Salesman.

LEGS.

Peddler.
Laborer.
Bill-poster.
Baker.
Machinist.
Student.¹
Teamster.
Butcher.
Painter.
Dental mechanic.
Helper on wagon.¹
Haberdasher.
Machine hand.
Auto mechanic.¹
Brakeman.
Upholsterer.
Student.
Track inspector.¹
Coal heaver.¹
Too young.¹
Too young.¹
Too young.¹

Same.
Same.
Folder of paper.
Tends shop.
Candy store.
Cashier.
Janitor work.
Same.
Employing painter.
Same.
Peddles gum.
Jitney bus.
By same employer.
Repair shop.
Storekeeper.
Same.
Clerk.
Peddler.
Peddles pencils.
Wireless operator.
Newsboy.
Office boy.

Of the 27 cases who had lost hands and arms only 9 had artificial ones. The high cost of a really efficient hand and arm debars many of the wage-earning class from acquiring them. One man had an expensive arm which he found too heavy. He had discarded it for a lighter device.

Of the nine men wearing artificial hands and arms six were employed. One of the three out of employment could not wear his hand because the stump was sore, and a second had just gotten his arm. The chances for employment seem to be considerably better for a man who has an artificial limb than for one who has not. This is particularly so when a foot or leg is gone. Seventy-nine of the 116 foot and leg cases had suffered amputations, and 43 had artificial limbs. An examination of these 43 cases leads one to believe that the possession and expert use of an artificial leg greatly improve the chances of employment. Twenty men with artificial feet and legs had

¹ Case of long standing.

found employment. The experiences of the 23 who had artificial legs and were unemployed lead one to think that with better health, or with more serviceable legs, most of them would stand a much better chance of employment. Two had new legs which they had not learned to use well; six had difficulty in wearing their legs because of sore stumps; in two cases trouble with the other leg prevented their getting about; in three cases the trouble seemed to be that the legs did not fit properly; three had worked with their artificial limbs but were temporarily idle; one man said the unsightliness of his "peg" leg had lost many jobs for him; one man had lost both legs at different times, and had only one artificial limb; another who had two artificial limbs and had been employed was idle at the time; two were boys who were very active on their artificial legs but were as yet industrially unattached.

The opinion among employers who were interviewed was that there were many occupations that might be filled by leg cripples who had the use of their hands. But it is quite essential that they get about with some facility. Many employers refuse to hire men who use crutches, but do not object to men with artificial limbs. The possession of an artificial limb, therefore, seems to be quite essential to the employment of a leg cripple.

TABLE II.

	Needing training.
Upper limb injuries:	
Fingers.....	34
Hands.....	20
Arms.....	18
Total.....	72
Lower limb injuries:	
Toes.....	3
Feet.....	11
Legs.....	42
Total.....	56
Miscellaneous.....	1
Grand total.....	129

The number of men who were thought by the investigators to need either reeducation for their old trade, or training for a new occupation, was 129. When each case was carefully considered in the light of the man's age, his education, the kind of work he had done, his attitude toward training, his knowledge of English, etc., the number was narrowed down to 61, who seemed to be hopeful candidates for such training as the Institute might be equipped to do. Probably not all of these could or would enter trade classes, but from this number there could probably be selected a number of candidates who would afford good material for the educational experiment proposed.

VILLAGE SETTLEMENTS FOR DISABLED SOLDIERS IN GREAT BRITAIN.

The following account of a scheme for village settlements intended to combine restorative treatment with industrial and social reconstruction for disabled ex-service men in Great Britain is reprinted from the *Lancet* for November 3, 1917:

For the past year a group of men and women have been engaged in working out a practical scheme of which the main objects are as follows: (1) To restore disabled

sailors and soldiers to health of mind and body; (2) to train them for settlement in villages and on the land; (3) as a natural result, to encourage the founding of small self-supplying village communities, where local industries and handicrafts shall be pursued on sound and just lines.

A provisional committee has now been constituted to carry out these aims. * * *

The following are the guiding principles of the [proposed] scheme:

Healing and restoration after certain types of disablement is a slow and tedious process, demanding patience and faith. The training for a new trade or profession or for some modification of the old is also a slow process. It seems, therefore, a matter of common sense and humanity to carry on the two together and to provide for each man who needs it a system of curative treatment, combined with manual or mental training, such as will cure his disabilities, develop his natural gifts, and equip him to become, as far as possible and at the earliest possible date, a self-supporting citizen.

The committee desire that a large number of disabled and delicate men may be trained for rural life and village crafts, believing that in a congenial rural life lies the cure for their physical and mental ills. They must be attracted to the training center not only by the hope of physical or mental cure, but by the prospect of some degree of home life, self-government, and self-development. The committee discard the idea of military discipline and propose that the men shall form a committee among themselves to cooperate in the management of the place and help to evolve the necessary rules and regulations. Not only will curative treatment and training be given, but the social and industrial aspects of the settlement will be studied and some system for the fair production and distribution of goods thought out and applied.

The village settlement will serve two purposes. It will be a healing and training center, from which many hundreds of disabled men will pass every year restored to health and vigor and ready to contribute to the coming colonization of the home country or to practice the craft or art for which they will have been newly trained. It should also naturally become the nucleus of something more lasting, for it is proposed that little by little selected men shall settle with their families on the particular estate, there forming the basis of a permanent village settlement, with its own life and industries, institutions, and interests.

Some of the details of the scheme may be given.

Site and size of the settlement.—From the medical point of view it is essential that all the circumstances and surroundings of the settlement, such as situation and climate, shall favor health. Town areas are therefore undesirable, as also flat or damp country. For the best results surroundings of natural beauty and tranquility are necessary. If it proves most desirable to settle near an existing town these features must still be secured. In any case fertility of soil and convenience of transport must be regarded, together with ready opportunity for public service of water, electricity, and the like.

The committee strongly wish, if possible, to begin with an area of 1 square mile (640 acres), suitable for a training center of, say, 1,000 disabled men at a time, that being an economical medical unit. Of these, perhaps two-thirds will study agriculture and allied subjects, the rest handicrafts and business subjects. A certain proportion as they pass through will become desirous of settling permanently on the land or in villages with their families, and ultimately it is hoped that about 200 ex-service men may make their homes on the estate.

Types of disablement suitable to the scheme.—The types of case most likely to benefit by such a scheme of combined treatment and training are: (1) A large number of men suffering from shell shock, neurasthenia, and depression, for whom the encouraging and homelike influences of such a settlement are more suited than institutional treatment; (2) men crippled by wounds or by stiff or wasted joints or muscles; (3) men who have suffered amputation; (4) certain cases recovering from malaria or other

fevers and delicate men for whom a country life is prescribed. Incurable cases—that is to say, men who can not reasonably be expected to recover any real capacity for work—will not be received, nor those who still require surgical aid or residence in hospitals. The cases to be selected for the settlement will belong to the category of outpatients. Much importance is attached to the mixture of all kinds of curable disability and disablement. The patients will not be arranged in groups according to the form of disability from which they suffer, e. g., (1) mental shock, (2) neurasthenia, (3) paralysis, (4) amputation, (5) wounded limbs, and so on, but will live, work, and be treated together, the more severe with the slighter cases. In this way the intensive effects of gathering together numbers of men suffering from a particular form of abnormality may be avoided. The committee have the support of eminent authority in believing that aggregation of many cases of the same malady may prove as injurious in mental and nervous disorders as in infective illnesses.

Principles of employment.—The three main considerations are: (1) Medical, (2) the man's natural tastes and abilities, (3) the likelihood of financial success. Upon arrival each man should go before a committee consisting of experts in (1) orthopedics, neurasthenia, and general medicine, (2) education, (3) technical education, (4) industry and employment, who should give him their best advice upon the selection of an occupation. Each case must be considered upon its own merits, so that as far as possible some work may be found for every man which will aid his physical cure, soothe and occupy his mind, and bring out his latent talents, and provide a safe investment for the future. The medical man in charge will take periodical measurements and records of the patient's muscular power and movement, fatigability, and general progress.

The present sincere desire for industrial reform, widely and deeply felt, suggests that some experiments in this direction might be tried which would be of value in the future. The conditions for such experiments are good, as the men are not able-bodied, and therefore at first business principles are not strictly applicable, although economic soundness must be an aim and should be a natural result.

Factories will doubtless remain in certain industries. But there is a growing reaction against the universal recourse to the factory system, with its specialization of labor, speeding up, and lack of personal relationships. There is in many quarters a desire to return to a modified form of the old craft guilds, in which a man may learn to create articles for use of a high standard and himself become a master craftsman, not wholly spending his life in performing some mechanical and deadening process. The workshops of the proposed settlement must aim at high conditions of work, whereby articles are well and heartily made, and to attain this it seems desirable that the producers shall have some share and interest in the things which they have produced, associated, as far as possible, in self-governing workshops.

Administration.—One of the most important features of the scheme is the home life within it. It is believed that many men, if they could have their wives and children living with them, would happily settle down to a prolonged period of training, extending over months or even years. The suggestion, therefore, is that cottages should be provided as homes for these families. Any patient during his course would be free to apply to the committee for the use of a cottage for himself and his family, and it might well be that the privilege of occupying one of these could be dependent upon good work and good conduct, as well as upon suitability. Some of the families would only be there for a time; others would stay permanently and form the nucleus of a new village. In either case the presence of home life within the training center would be a strength to it in many ways.

It is proposed that compulsory and harassing regulations should be absent from the settlement and that the men themselves should be represented in its administration and direction.

PRICES AND COST OF LIVING.

RETAIL PRICES OF FOOD AND COAL IN THE UNITED STATES.

According to reports received from retail dealers by the Bureau of Labor Statistics, retail prices of food for the United States for January 15, 1918, show an increase of 2 per cent as compared with December 15, 1917.

Relative prices are shown for 16 articles only in this report. The year 1913 is used as the basis for comparison. No prices were secured by the bureau at that time for the following articles: Chuck roast, plate beef, salmon, cheese, rice, onions, beans, prunes, raisins, coffee, and tea. Average prices of these articles are shown for December, 1917, and for January of each year from 1914 to 1918, inclusive.

Four of the 16 articles show a decrease in price, flour of 2 per cent, lard, bacon, and corn meal of 1 per cent, each. Hens show the greatest increase, or 8 per cent. Eggs and potatoes increased 6 per cent each; butter 4 per cent; and milk 3 per cent. Sirloin steak, round steak, and rib roast show an increase of 2 per cent. Pork chops, ham, and sugar increased 1 per cent each. The price of bread remained the same.

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The following table shows the course of prices in the United States in December, 1917, and January, 1918:

AVERAGE MONEY RETAIL PRICES AND RELATIVE RETAIL PRICES OF FOOD ON DEC. 15, 1917, AND JAN. 15, 1918.

[The relative price shows the per cent that the average price on the 15th of each month was of the average price for the year 1913.]

Article.	Unit.	Average money price.		Relative price.	
		Dec. 15, 1917.	Jan. 15, 1918.	Dec. 15, 1917.	Jan. 15, 1918.
Sirloin steak.....	Pound.....	\$0. 320	\$0. 327	126	129
Round steak.....	do.....	.300	.306	134	137
Rib roast.....	do.....	.253	.258	128	130
Chuck roast.....	do.....	.215	.221		
Plate beef.....	do.....	.164	.172		
Pork chops.....	do.....	.338	.343	161	163
Bacon.....	do.....	.487	.486	181	180
Ham.....	do.....	.435	.436	161	162
Lard.....	do.....	.333	.329	211	208
Hens.....	do.....	.304	.329	143	154
Salmon, canned.....	do.....	.290	.292		
Eggs.....	Dozen.....	.634	.674	184	195
Butter.....	Pound.....	.543	.567	142	148
Cheese.....	do.....	.345	.345		
Milk.....	Quart.....	.131	.134	147	151
Bread.....	16-ounce loaf. ¹	.083	.083	166	166
Flour.....	Pound.....	.067	.066	205	200
Corn meal.....	do.....	.071	.070	235	233
Rice.....	do.....	.116	.117		
Potatoes.....	do.....	.031	.032	178	188
Onions.....	do.....	.050	.050		
Beans, navy.....	do.....	.188	.185		
Prunes.....	do.....	.164	.164		
Raisins, seeded.....	do.....	.150	.150		
Sugar.....	do.....	.094	.095	172	173
Coffee.....	do.....	.303	.304		
Tea.....	do.....	.621	.623		
All articles combined.....				157	160

¹ 16 ounces, weight of dough.

In the year from January 15, 1917, to January 15, 1918, the price of food as a whole increased 25 per cent. All articles show decided increases, with the exception of potatoes, which decreased 16 per cent. Corn meal shows the greatest price change, an increase of 77 per cent. Bacon increased 64 per cent, lard 53 per cent, pork chops 44 per cent, ham 42 per cent, milk 35 per cent, hens 29 per cent, butter 25 per cent, eggs 23 per cent, bread 19 per cent, sugar 18 per cent, and flour 17 per cent.

A comparison of prices as between January, 1913, and January, 1918, shows that corn meal increased 135 per cent, lard 114 per cent, potatoes 107 per cent, flour 100 per cent, bacon 91 per cent, pork chops 83 per cent, eggs 81 per cent, bread 66 per cent, sugar 63 per cent, hens 62 per cent, and milk 51 per cent. Food as a whole advanced 63 per cent.

January, 1915, only, shows a decrease in the price of food as a whole in comparison with the same month in a preceding year.

A table showing the average and relative retail prices of food in the United States on January 15 of each year, 1913 to 1918, inclusive, follows:

AVERAGE MONEY PRICES AND RELATIVE RETAIL PRICES OF FOOD ON JANUARY 15 OF EACH YEAR, 1913 TO 1918, INCLUSIVE.

[The relative price shows the per cent that the average price on the 15th of each month was of the average price for the year 1913.]

Article.	Unit.	Average money price, Jan. 15—						Relative price, Jan. 15—					
		1913	1914	1915	1916	1917	1918	1913	1914	1915	1916	1917	1918
Sirloin steak.....	Lb....	\$0.238	\$0.251	\$0.254	\$0.257	\$0.276	\$0.327	94	99	100	101	109	129
Round steak.....	do....	.206	.228	.228	.228	.247	.306	92	102	102	102	111	137
Rib roast.....	do....	.187	.197	.199	.199	.216	.258	95	100	101	101	109	130
Chuck roast.....	do....		.169	.163	.162	.174	.221						
Plate beef.....	do....		.123	.124	.120	.132	.172						
Pork chops.....	do....	.186	.207	.186	.186	.236	.343	89	99	88	89	113	163
Bacon.....	do....	.255	.264	.273	.273	.296	.486	94	98	101	101	110	180
Ham.....	do....	.253	.265	.265	.294	.306	.436	93	98	98	109	114	162
Lard.....	do....	.154	.158	.154	.175	.214	.329	97	100	97	111	136	208
Hens.....	do....	.203	.212	.203	.217	.255	.329	95	100	95	101	119	154
Salmon, canned.....	do....			.198	.200	.214	.292						
Eggs.....	Doz....	.371	.435	.443	.424	.544	.674	108	126	129	123	158	195
Butter.....	Lb....	.410	.398	.386	.382	.453	.567	107	104	101	100	118	148
Cheese.....	do....			.232	.243	.312	.345						
Milk.....	Qt....	.089	.091	.090	.089	.099	.134	100	102	101	100	112	151
Bread.....	16-oz. ¹	.050	.055	.060	.062	.070	.083	100	110	120	124	140	166
Flour.....	Lb....	.033	.032	.040	.039	.056	.066	100	98	124	120	171	200
Corn meal.....	do....	.030	.031	.033	.032	.040	.070	99	104	109	107	132	233
Rice.....	do....			.091	.091	.091	.117						
Potatoes.....	do....	.016	.019	.015	.024	.039	.032	91	108	85	136	225	188
Onions.....	do....			.034	.041	.069	.050						
Beans, navy.....	do....			.073	.091	.145	.185						
Prunes.....	do....			.137	.133	.139	.164						
Raisins, seeded.....	do....			.125	.126	.141	.150						
Sugar.....	do....	.058	.052	.060	.067	.080	.095	106	95	110	123	146	173
Coffee.....	do....			.299	.299	.299	.304						
Tea.....	do....			.546	.546	.546	.623						
All articles combined.....								98	104	103	107	128	160

¹ Loaf; 16 ounces, weight of dough.

The two tables which follow give average retail prices for 29 articles in 44 cities.

For 15 cities, average prices are shown for December 15, 1917, and for January 15, 1913, 1914, 1917, and 1918. Prices are not shown for Atlanta Ga., as less than 80 per cent of the meat and grocery firms of that city sent in their reports to the bureau.

For 29 cities, average prices are given for January 15, 1918.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 15 SELECTED CITIES FOR JAN. 15, 1913, 1914, 1917, AND 1918, AND DEC. 15, 1917.
 [The average prices shown below are computed from reports sent monthly to the bureau by retail dealers. As some dealers occasionally fail to report, the number of quotations varies from month to month.]

Article.	Unit.	Atlanta, Ga.				Baltimore, Md.				Boston, Mass.				Buffalo, N. Y.			
		January 15—			Jan. 15—	January 15—			Dec. 15—	January 15—			Dec. 15—	January 15—			Jan. 15—
		1913	1914	1917		1913	1914	1917		1913	1914	1917		1913	1914	1917	
Sirloin steak.....	Lb.....	(1)	(1)	(1)	(1)	\$0.207	\$0.228	\$0.252	\$0.319	\$0.327	\$0.352	\$0.325	\$0.360	\$0.427	\$0.426	\$0.203	\$0.314
Round steak.....	do.....	(1)	(1)	(1)	(1)	.190	.216	.242	.310	.315	.320	.338	.364	.427	.427	.183	.292
Rib roast.....	do.....	(1)	(1)	(1)	(1)	.170	.178	.200	.262	.267	.234	.237	.265	.309	.303	.170	.243
Chuck roast.....	do.....	(1)	(1)	(1)	(1)	.150	.152	.166	.227	.231	.163	.173	.197	.253	.253	.147	.223
Plate beef.....	do.....	(1)	(1)	(1)	(1)	.....	.....	.140	.181	.183	.....	.....	.....	.....	.....	.135	.175
Pork chops.....	do.....	(1)	(1)	(1)	(1)	.180	.175	.214	.336	.348	.200	.228	.249	.349	.350	.180	.354
Bacon, sliced.....	do.....	(1)	(1)	(1)	(1)	.213	.223	.263	.458	.460	.244	.250	.274	.453	.459	.203	.443
Ham, sliced.....	do.....	(1)	(1)	(1)	(1)	.290	.290	.335	.477	.491	.283	.314	.345	.453	.465	.240	.451
Lard.....	do.....	(1)	(1)	(1)	(1)	.140	.147	.203	.330	.332	.154	.158	.217	.341	.334	.141	.319
Lamb.....	do.....	(1)	(1)	(1)	(1)	.173	.180	.270	.324	.327	.213	.212	.276	.335	.334	.175	.291
Hens.....	do.....	(1)	(1)	(1)	(1)	.200	.213	.248	.310	.351	.220	.245	.283	.335	.349	.190	.328
Salmon, canned.....	do.....	(1)	(1)	(1)	(1)	.....	.....	.175	.254	.262	.....	.....	.205	.302	.302	.....	.286
Eggs, strictly fresh.....	Doz.....	(1)	(1)	(1)	(1)	.338	.388	.548	.620	.741	.410	.473	.629	.775	.791	.377	.718
Eggs, storage.....	do.....	(1)	(1)	(1)	(1)	.250	.340	.435	.446	.541	.264	.363	.437	.480	.541	.233	.526
Butter.....	Lb.....	(1)	(1)	(1)	(1)	.428	.406	.481	.568	.591	.385	.382	.446	.520	.544	.402	.570
Cheese.....	do.....	(1)	(1)	(1)	(1)	.....	.....	.323	.351	.355	.....	.....	.290	.328	.332	.....	.336
Milk.....	Qt.....	(1)	(1)	(1)	(1)	.088	.087	.092	.128	.130	.089	.089	.100	.140	.145	.080	.140
Bread.....	16-oz.3.....	(1)	(1)	(1)	(1)	.048	.049	.064	.076	.075	.052	.052	.069	.076	.078	.050	.071
Flour.....	Lb.....	(1)	(1)	(1)	(1)	.032	.031	.055	.066	.066	.037	.036	.062	.075	.074	.029	.062
Corn meal.....	do.....	(1)	(1)	(1)	(1)	.026	.025	.033	.061	.061	.035	.036	.044	.079	.077	.025	.077
Rice.....	do.....	(1)	(1)	(1)	(1)	.....	.....	.098	.116	.115	.....	.....	.098	.120	.120	.....	.119
Potatoes.....	do.....	(1)	(1)	(1)	(1)	.017	.018	.041	.030	.036	.017	.020	.040	.035	.037	.014	.031
Onions.....	do.....	(1)	(1)	(1)	(1)	.....	.....	.075	.054	.051	.....	.....	.076	.058	.057	.....	.054
Beans, navy.....	do.....	(1)	(1)	(1)	(1)	.180	.180	.180	.180	.180	.....	.....	.189	.188	.188	.....	.193
Prunes.....	do.....	(1)	(1)	(1)	(1)	.....	.....	.130	.175	.166	.....	.....	.143	.172	.267	.....	.169
Raisins.....	do.....	(1)	(1)	(1)	(1)	.....	.....	.120	.151	.153	.....	.....	.140	.151	.148	.....	.140
Sugar.....	do.....	(1)	(1)	(1)	(1)	.051	.047	.075	.095	.094	.058	.052	.078	.101	.099	.055	.097
Coffee.....	do.....	(1)	(1)	(1)	(1)	.....	.....	.235	.286	.277	.....	.....	.334	.334	.346	.....	.295
Tea.....	do.....	(1)	(1)	(1)	(1)	.....	.....	.550	.653	.653	.....	.....	.900	.637	.617	.....	.555

Article.	Unit.	Chicago, Ill.				Cleveland, Ohio.				Denver, Colo.				Detroit, Mich.			
		January 15—		Dec. 15—		January 15—		Dec. 15—		January 15—		Dec. 15—		January 15—		Dec. 15—	
		1913	1914	1917	1918	1913	1914	1917	1918	1913	1914	1917	1918	1913	1914	1917	1918
Sirloin steak.....	Lb.	\$0.210	\$0.248	\$0.265	\$0.292	\$0.302	\$0.302	\$0.297	\$0.302	\$0.220	\$0.229	\$0.225	\$0.292	\$0.228	\$0.262	\$0.296	\$0.318
Round steak.....	do.	.182	.212	.227	.260	.273	.288	.278	.288	.190	.207	.188	.276	.180	.214	.208	.285
Rib roast.....	do.	.182	.196	.223	.242	.254	.254	.238	.244	.159	.174	.180	.223	.180	.202	.213	.251
Chuck roast.....	do.	.143	.158	.167	.205	.212	.224	.217	.224	.140	.153	.161	.203	.145	.156	.165	.210
Plate beef.....	do.	.....	.....	.130	.159	.164	.163	.163	.168	.....	.....	.101	.148	.....	.....	.128	.167
Pork chops.....	do.	.160	.179	.227	.298	.316	.323	.323	.331	.175	.183	.218	.333	.165	.176	.218	.333
Bacon, sliced.....	do.	.313	.310	.316	.492	.498	.239	.301	.467	.263	.274	.317	.518	.210	.228	.253	.458
Ham, sliced.....	do.	.308	.320	.333	.429	.428	.320	.335	.444	.270	.283	.333	.467	.235	.280	.300	.423
Lard.....	do.	.148	.150	.203	.319	.318	.158	.163	.316	.156	.163	.216	.342	.156	.161	.208	.329
Lamb.....	do.	.187	.197	.232	.286	.306	.173	.191	.290	.150	.151	.193	.289	.160	.166	.225	.313
Hens.....	do.	.174	.178	.237	.265	.304	.193	.206	.308	.204	.197	.215	.305	.188	.194	.263	.342
Salmon, canned.....	do.	.....	.....	.231	.295	.303	.....	.....	.279	.....	.....	.181	.275	.....	.....	.292	.296
Eggs, strictly fresh.....	Doz.	.327	.388	.525	.588	.651	.350	.448	.619	.370	.436	.525	.612	.350	.432	.583	.726
Eggs, storage.....	do.	.238	.335	.449	.438	.534	.245	.390	.463	.250	.335	.400	.509	.252	.365	.443	.528
Butter.....	Lb.	.399	.381	.438	.530	.544	.418	.428	.487	.400	.393	.438	.543	.397	.399	.443	.556
Cheese.....	do.	.....	.....	.321	.366	.375	.....	.....	.317	.....	.....	.325	.358	.....	.....	.305	.338
Milk.....	Qt.	.080	.080	.090	.119	.119	.088	.080	.100	.084	.084	.083	.120	.090	.089	.110	.140
Bread.....	10-oz. ²	.054	.054	.072	.080	.080	.049	.050	.070	.048	.048	.075	.086	.050	.050	.070	.077
Flour.....	Lb.	.028	.029	.051	.061	.061	.032	.032	.058	.026	.025	.039	.054	.023	.031	.054	.062
Corn meal.....	do.	.029	.030	.042	.069	.070	.028	.029	.041	.025	.026	.032	.059	.028	.030	.040	.077
Rice.....	do.	.....	.....	.094	.115	.120	.....	.....	.092	.....	.....	.092	.114	.....	.....	.086	.118
Potatoes.....	do.	.013	.017	.040	.026	.028	.014	.020	.042	.012	.017	.032	.025	.013	.016	.041	.029
Onions.....	do.	.....	.....	.068	.044	.045	.....	.....	.071	.....	.....	.050	.049	.....	.....	.053	.053
Beans, navy.....	do.	.....	.....	.148	.189	.185	.181	.153	.194	.....	.....	.124	.184	.....	.....	.144	.179
Prunes.....	do.	.....	.....	.140	.160	.162	.....	.....	.138	.....	.....	.138	.170	.....	.....	.129	.168
Raisins.....	do.	.....	.....	.147	.148	.150	.....	.....	.139	.....	.....	.131	.142	.....	.....	.128	.139
Sugar.....	do.	.053	.050	.073	.084	.084	.056	.051	.080	.058	.050	.079	.088	.052	.050	.074	.087
Coffee.....	do.	.....	.....	.300	.283	.283	.....	.....	.288	.....	.....	.288	.295	.....	.....	.293	.298
Tea.....	do.	.....	.....	.543	.593	.593	.....	.....	.475	.....	.....	.488	.576	.....	.....	.450	.544

¹ Prices not shown, less than 80 per cent of reports for January, 1918, received by bureau.² Loaf: 16 ounces, weight of dough.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 15 SELECTED CITIES FOR JAN. 15, 1913, 1914, 1917, AND 1918, AND DEC. 15, 1917—Concluded.

Article.	Unit.	Milwaukee, Wis.				New York, N. Y.				Philadelphia, Pa.				Pittsburgh, Pa.			
		January 15—		Dec. 15—	Jan. 15—	January 15—		Dec. 15—	Jan. 15—	January 15—		Dec. 15—	Jan. 15—	January 15—		Dec. 15—	Jan. 15—
		1913	1914	1917	1918	1913	1914	1917	1918	1913	1914	1917	1918	1913	1914	1917	1918
Sirloin steak.....	Lb....	\$0.205	\$0.234	\$0.251	\$0.208	\$0.244	\$0.256	\$0.284	\$0.344	\$0.283	\$0.300	\$0.328	\$0.387	\$0.248	\$0.272	\$0.290	\$0.344
Round steak.....	do....	.185	.216	.260	.284	.231	.251	.275	.352	.231	.257	.286	.360	.214	.228	.259	.318
Rib roast.....	do....	.173	.188	.200	.245	.210	.218	.238	.294	.214	.219	.238	.286	.204	.213	.233	.265
Chuck roast.....	do....	.150	.164	.174	.225	.149	.161	.173	.236	.165	.180	.197	.249	.154	.170	.189	.232
Plate beef.....	do....	.....	.....	.128	.167	.....	.....	.161	.221	.....	.....	.131	.176	.....	.....	.129	.169
Pork chops.....	do....	.153	.178	.226	.301	.195	.216	.248	.348	.198	.217	.255	.354	.194	.215	.247	.348
Bacon, sliced.....	do....	.255	.274	.305	.488	.230	.251	.272	.462	.236	.254	.301	.466	.272	.283	.308	.502
Ham, sliced.....	do....	.260	.278	.309	.441	1.181	1.197	1.229	1.469	.291	.296	.363	.486	.290	.291	.350	.461
Lard.....	do....	.150	.156	.216	.331	.159	.159	.213	.337	.144	.151	.211	.338	.156	.156	.213	.341
Lamb.....	do....	.185	.190	.245	.312	.159	.159	.217	.277	.177	.190	.251	.306	.213	.207	.271	.345
Hens.....	do....	.178	.190	.245	.304	.198	.213	.261	.326	.208	.229	.277	.323	.243	.258	.300	.388
Salmon, canned.....	do....	.....	.....	.219	.274	.....	.....	.253	.346	.....	.....	.175	.261	.....	.213	.311	.305
Eggs, strictly fresh.....	Doz....	.346	.382	.528	.579	.426	.499	.667	.731	.384	.440	.623	.663	.376	.431	.593	.644
Eggs, storage.....	do....	.253	.333	.426	.416	.274	.377	.455	.536	.252	.347	.445	.449	.250	.361	.438	.451
Butter.....	Lb....	.380	.385	.448	.531	.408	.398	.460	.574	.464	.461	.511	.593	.419	.423	.473	.569
Cheese.....	do....	.....	.....	.313	.338	.....	.....	.301	.346	.....	.....	.318	.370	.....	.....	.313	.349
Milk.....	Qt....	.070	.070	.080	.110	.090	.090	.100	.150	.080	.080	.090	.122	.088	.092	.103	.127
Bread.....	16-oz. 3	.050	.051	.076	.086	.053	.054	.071	.078	.043	.043	.057	.076	.047	.049	.068	.082
Flour.....	Lb....	.031	.031	.056	.062	.033	.032	.056	.070	.032	.031	.056	.073	.030	.031	.056	.070
Corn meal.....	do....	.033	.033	.047	.071	.035	.035	.051	.085	.028	.028	.038	.071	.027	.029	.043	.088
Rice.....	do....	.....	.....	.095	.116	.....	.....	.091	.117	.....	.....	.097	.123	.....	.....	.095	.119
Potatoes.....	do....	.012	.016	.041	.027	.025	.025	.048	.038	.021	.024	.046	.036	.015	.019	.044	.031
Onions.....	do....	.....	.....	.048	.048	.....	.....	.072	.058	.....	.....	.077	.055	.....	.....	.085	.049
Beans, navy.....	do....	.....	.....	.147	.194	.....	.....	.149	.186	.....	.....	.143	.187	.....	.....	.150	.200
Prunes.....	do....	.....	.....	.150	.158	.....	.....	.139	.174	.....	.....	.141	.166	.....	.....	.139	.172
Raisins.....	do....	.....	.....	.142	.148	.....	.....	.135	.151	.....	.....	.129	.135	.....	.....	.147	.146
Sugar.....	do....	.055	.053	.077	.086	.051	.047	.074	.099	.052	.044	.076	.097	.060	.054	.086	.097
Coffee.....	do....283	.261265	.275283	.279281	.297
Tea.....	do....540	.586460	.515544	.571571	.727

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Article.	Unit.	St. Louis, Mo.				San Francisco, Cal.				Seattle, Wash.				Washington, D. C.			
		January 15—		Dec. 15—	Jan. 15—	January 15—		Dec. 15—	Jan. 15—	January 15—		Dec. 15—	Jan. 15—	January 15—		Dec. 15—	Jan. 15—
		1913	1914	1917	1918	1913	1914	1917	1918	1913	1914	1917	1918	1913	1914	1917	1918
Sirloin steak.....	Lb.....	\$0.227	\$0.273	\$0.259	\$0.300	\$0.203	\$0.210	\$0.214	\$0.243	\$0.220	\$0.240	\$0.232	\$0.275	\$0.250	\$0.275	\$0.262	\$0.370
Round steak.....	do.....	.193	.243	.246	.286	.187	.197	.200	.237	.200	.212	.212	.253	.214	.234	.250	.351
Rib roast.....	do.....	.168	.205	.213	.252	.203	.220	.213	.235	.180	.194	.200	.228	.203	.210	.218	.288
Chuck roast.....	do.....	.133	.159	.166	.204	.150	.155	.148	.173	.152	.149	.151	.183	.156	.170	.188	.254
Plate beef.....	do.....	.129	.168	.168	.172	.150	.142	.142	.166	.150	.142	.117	.155	.150	.144	.144	.195
Pork chops.....	do.....	.177	.185	.223	.303	.218	.250	.246	.362	.224	.240	.244	.383	.203	.203	.242	.381
Bacon, sliced.....	do.....	.230	.250	.275	.477	.328	.340	.367	.535	.300	.321	.317	.524	.230	.245	.272	.488
Ham, sliced.....	do.....	.250	.300	.309	.451	.300	.320	.400	.486	.283	.300	.310	.443	.282	.286	.325	.468
Lard.....	do.....	.131	.130	.187	.286	.176	.174	.225	.334	.178	.170	.211	.320	.142	.149	.198	.336
Lamb.....	do.....	.177	.171	.247	.306	.172	.180	.218	.281	.186	.187	.212	.301	.193	.197	.250	.357
Hens.....	do.....	.178	.175	.227	.265	.242	.238	.283	.349	.243	.250	.255	.341	.206	.224	.253	.350
Salmon, canned.....	do.....	.191	.275	.287	.285	.196	.196	.196	.252	.196	.196	.196	.288	.180	.180	.285	.283
Eggs, strictly fresh.....	Doz.....	.293	.383	.483	.584	.314	.479	.480	.596	.300	.425	.433	.605	.331	.410	.613	.813
Eggs, storage.....	do.....	.250	.300	.417	.428	.225	.413	.350	.441	.325	.375	.373	.484	.250	.357	.425	.584
Butter.....	Lb.....	.407	.398	.459	.551	.414	.361	.425	.538	.446	.409	.447	.549	.434	.430	.478	.600
Cheese.....	do.....	.309	.351	.309	.352	.242	.242	.242	.329	.243	.250	.275	.305	.206	.224	.253	.355
Milk.....	Qt.....	.080	.088	.095	.130	.100	.100	.100	.121	.091	.096	.098	.125	.090	.090	.100	.140
Bread.....	16-oz.....	.050	.050	.072	.088	.052	.052	.060	.085	.053	.051	.077	.087	.051	.050	.069	.076
Flour.....	Lb.....	.031	.028	.052	.061	.033	.034	.051	.062	.028	.029	.047	.058	.038	.037	.053	.070
Corn meal.....	do.....	.023	.026	.035	.050	.034	.034	.044	.070	.031	.034	.041	.075	.026	.025	.030	.066
Rice.....	do.....	.086	.086	.111	.112	.088	.088	.088	.112	.085	.085	.085	.108	.085	.085	.087	.125
Potatoes.....	do.....	.017	.016	.039	.030	.016	.019	.032	.029	.010	.014	.026	.020	.016	.020	.040	.035
Onions.....	do.....	.085	.085	.085	.046	.076	.076	.076	.030	.076	.076	.076	.042	.076	.076	.062	.051
Beans, navy.....	do.....	.143	.143	.143	.179	.141	.141	.141	.163	.146	.146	.146	.183	.146	.146	.149	.200
Prunes.....	do.....	.138	.138	.166	.167	.124	.124	.124	.139	.130	.130	.130	.145	.130	.130	.146	.174
Raisins.....	do.....	.146	.146	.167	.165	.135	.135	.135	.137	.131	.131	.131	.145	.131	.131	.137	.152
Sugar.....	do.....	.075	.075	.086	.087	.057	.053	.074	.081	.061	.058	.079	.088	.055	.049	.075	.096
Coffee.....	do.....	.237	.237	.250	.274	.317	.317	.317	.301	.320	.320	.320	.310	.320	.320	.294	.285
Tea.....	do.....	.543	.543	.636	.650	.517	.517	.517	.539	.500	.500	.500	.548	.500	.500	.532	.639

* Load; 16 ounces, weight of dough.

1 Whole ham.

106 MONTHLY REVIEW OF THE BUREAU OF LABOR STATISTICS.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 20 CITIES
ON JAN. 15, 1918.

[The average prices shown below are computed from reports sent monthly to the bureau by retail dealers. As some dealers occasionally fail to report, the number of quotations varies from month to month.]

Article.	Unit.	Average retail prices, Jan. 15, 1918.									
		Birmingham, Ala.	Bridgeport, Conn.	Butte, Mont.	Charleston, S. C.	Cincinnati, Ohio.	Columbus, Ohio.	Dallas, Tex.	Fall River, Mass.	Indianapolis, Ind.	Jacksonville, Fla.
Sirloin steak.....	Lb....	\$0.350	\$0.410	\$0.305	\$0.311	\$0.283	\$0.320	\$0.328	\$0.425	\$0.313	\$0.333
Round steak.....	do....	.305	.381	.277	.301	.270	.294	.315	.364	.307	.300
Rib roast.....	do....	.263	.313	.255	.262	.239	.251	.277	.276	.230	.254
Chuck roast.....	do....	.219	.275	.202	.203	.203	.222	.247	.233	.215	.203
Plate beef.....	do....	.171	.170	.145	.181	.173	.176	.191	.....	.167	.165
Pork chops.....	do....	.335	.338	.369	.358	.311	.322	.355	.340	.336	.348
Bacon, sliced.....	do....	.520	.506	.565	.508	.462	.476	.530	.453	.478	.500
Ham, sliced.....	do....	.450	.498	.475	.461	.435	.447	.463	.440	.440	.431
Lard.....	do....	.327	.328	.337	.340	.291	.327	.324	.316	.319	.343
Lamb.....	do....	.350	.302	.315	.336	.288	.315	.367	.310	.250	.307
Hens.....	do....	.301	.349	.347	.353	.333	.323	.276	.348	.275	.324
Salmon, canned.....	do....	.272	.353	.375	.268	.260	.272	.288	.301	.241	.285
Eggs, strictly fresh.....	Doz....	.683	.823	.730	.633	.710	.695	.656	.803	.701	.650
Eggs, storage.....	do....	.579	.542	.520	.521	.544	.523	.565	.518	.533	.543
Butter.....	Lb....	.595	.520	.592	.561	.516	.564	.551	.512	.574	.592
Cheese.....	do....	.356	.345	.358	.343	.360	.336	.359	.329	.375	.346
Milk.....	Qt....	.152	.150	.150	.155	.130	.123	.163	.128	.107	.180
Bread.....	16-oz. ¹	.089	.083	.106	.092	.080	.090	.078	.088	.073	.088
Flour.....	Lb....	.067	.071	.072	.077	.070	.066	.065	.075	.067	.072
Corn meal.....	do....	.051	.084	.078	.064	.065	.061	.070	.091	.063	.063
Rice.....	do....	.125	.123	.125	.091	.117	.121	.116	.121	.124	.106
Potatoes.....	do....	.039	.037	.023	.039	.032	.030	.033	.036	.044	.044
Onions.....	do....	.060	.056	.049	.056	.053	.056	.055	.053	.048	.059
Beans, navy.....	do....	.192	.189	.177	.190	.177	.181	.179	.181	.190	.201
Prunes.....	do....	.148	.167	.169	.161	.160	.154	.182	.165	.170	.180
Raisins.....	do....	.153	.157	.150	.150	.152	.149	.159	.152	.178	.178
Sugar.....	do....	.096	.100	.101	.098	.094	.094	.095	.103	.092	.101
Coffee.....	do....	.328	.316	.421	.274	.265	.302	.365	.321	.294	.327
Tea.....	do....	.762	.623	.779	.611	.692	.778	.816	.507	.770	.735
Article.	Unit.	Average retail prices, Jan. 15, 1918.									
		Kansas City, Mo.	Little Rock, Ark.	Los Angeles, Cal.	Louisville, Ky.	Manchester, N. H.	Memphis, Tenn.	Minneapolis, Minn.	Newark, N. J.	New Haven, Conn.	New Orleans, La.
Sirloin steak.....	Lb....	\$0.321	\$0.300	\$0.264	\$0.295	\$0.437	\$0.316	\$0.252	\$0.369	\$0.410	\$0.281
Round steak.....	do....	.292	.279	.244	.280	.398	.292	.241	.374	.376	.253
Rib roast.....	do....	.229	.256	.232	.231	.271	.252	.202	.300	.319	.245
Chuck roast.....	do....	.195	.201	.192	.208	.239	.210	.183	.264	.272	.183
Plate beef.....	do....	.163	.194	.157	.182	.200	.186	.140	.197	.....	.168
Pork chops.....	do....	.315	.338	.373	.318	.328	.335	.305	.355	.342	.350
Bacon, sliced.....	do....	.492	.519	.533	.495	.452	.496	.485	.445	.502	.519
Ham, sliced.....	do....	.464	.475	.523	.442	.421	.433	.435	.351	.506	.438
Lard.....	do....	.343	.341	.332	.313	.338	.319	.319	.336	.335	.331
Lamb.....	do....	.265	.296	.311	.325	.317	.303	.243	.333	.329	.298
Hens.....	do....	.276	.302	.360	.313	.357	.299	.282	.341	.352	.330
Salmon, canned.....	do....	.295	.294	.329	.242	.298	.304	.332	.342	.330	.313
Eggs, strictly fresh.....	Doz....	.587	.650	.621	.698	.725	.704	.601	.816	.813	.586
Eggs, storage.....	do....	.525	.617	.493	.559	.565	.559	.466	.548	.495	.492
Butter.....	Lb....	.549	.575	.574	.592	.565	.572	.518	.602	.523	.568
Cheese.....	do....	.352	.371	.333	.364	.337	.340	.317	.356	.338	.348
Milk.....	Qt....	.122	.150	.140	.127	.140	.150	.110	.150	.140	.142
Bread.....	16-oz. ¹	.087	.093	.075	.080	.076	.087	.077	.080	.081	.075
Flour.....	Lb....	.062	.066	.063	.067	.073	.069	.058	.073	.071	.072
Corn meal.....	do....	.062	.059	.075	.060	.080	.055	.056	.082	.082	.063
Rice.....	do....	.108	.118	.110	.119	.113	.105	.078	.119	.119	.106
Potatoes.....	do....	.031	.021	.025	.054	.035	.031	.034	.041	.036	.038
Onions.....	do....	.053	.053	.037	.048	.054	.050	.040	.061	.058	.047
Beans, navy.....	do....	.184	.180	.167	.188	.189	.192	.179	.185	.190	.176
Prunes.....	do....	.144	.171	.146	.169	.162	.160	.152	.173	.176	.159
Raisins.....	do....	.144	.150	.138	.150	.151	.153	.144	.148	.154	.151
Sugar.....	do....	.102	.094	.087	.091	.100	.099	.092	.099	.108	.096
Coffee.....	do....	.285	.310	.312	.266	.342	.302	.311	.299	.327	.266
Tea.....	do....	.620	.781	.586	.716	.581	.739	.500	.550	.571	.626

¹ Loaf; 16 ounces, weight of dough.

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AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 29 CITIES
ON JAN. 15, 1918—Concluded.

Article.	Unit.	Average retail prices Jan. 15, 1918.								
		Omaha, Nebr.	Port- land, Oreg.	Provi- dence, R. I.	Rich- mond, Va.	Roch- ester, N. Y.	St. Paul, Minn.	Salt Lake City, Utah.	Scranton, Pa.	Spring- field, Ill.
Sirloin steak.....	Lb....	\$0.305	\$0.253	\$0.514	\$0.330	\$0.308	\$0.286	\$0.273	\$0.350	\$0.327
Round steak.....	do....	.288	.240	.421	.305	.291	.249	.258	.314	.307
Rib roast.....	do....	.231	.229	.329	.258	.256	.238	.231	.275	.247
Chuck roast.....	do....	.205	.178	.300	.228	.237	.202	.198	.226	.230
Plate beef.....	do....	.159	.149	.....	.193	.179	.143	.157	.173	.187
Pork chops.....	do....	.307	.348	.360	.356	.347	.301	.352	.352	.327
Bacon, sliced.....	do....	.490	.518	.467	.478	.445	.481	.508	.516	.491
Ham, sliced.....	do....	.446	.465	.512	.413	.443	.454	.454	.446	.443
Lard.....	do....	.336	.344	.341	.342	.336	.317	.362	.327	.332
Lamb.....	do....	.268	.271	.338	.320	.312	.254	.272	.334	.319
Hens.....	do....	.277	.321	.364	.325	.348	.281	.339	.354	.266
Salmon, canned.....	do....	.284	.334	.289	.235	.292	.290	.320	.291	.279
Eggs, strictly fresh.....	Doz....	.622	.567	.815	.645	.765	.573	.600	.721	.608
Eggs, storage.....	do....	.507	.467	.519	.571	.492	.475	.487	.504	.568
Butter.....	Lb....	.535	.592	.555	.587	.546	.529	.550	.528	.589
Cheese.....	do....	.347	.304	.338	.357	.341	.338	.331	.322	.377
Milk.....	Qt....	.123	.126	.145	.140	.133	.110	.110	.140	.125
Bread.....	16 oz. ¹	.089	.078	.082	.089	.082	.088	.089	.085	.090
Flour.....	Lb....	.061	.058	.070	.071	.066	.061	.053	.072	.066
Corn meal.....	do....	.063	.071	.076	.062	.080	.065	.074	.....	.072
Rice.....	do....	.111	.116	.119	.121	.123	.114	.105	.121	.126
Potatoes.....	do....	.029	.020	.037	.025	.027	.026	.020	.032	.030
Onions.....	do....	.047	.038	.051	.059	.049	.041	.045	.064	.048
Beans, navy.....	do....	.176	.153	.187	.207	.194	.194	.180	.187	.205
Prunes.....	do....	.166	.138	.172	.154	.186	.164	.152	.169	.176
Raisins.....	do....	.165	.138	.145	.149	.151	.147	.144	.148	.175
Sugar.....	do....	.091	.090	.098	.100	.100	.095	.097	.100	.092
Coffee.....	do....	.311	.325	.339	.282	.299	.321	.342	.315	.300
Tea.....	do....	.604	.567	.571	.731	.530	.531	.622	.592	.669

¹ Loaf; 16 ounces, weight of dough.

Relative prices for three kinds of coal, Pennsylvania anthracite white ash coal, both in stove size and in chestnut size, and bituminous coal are given below.

The price of Pennsylvania anthracite stove coal increased 6 per cent, that of chestnut 5 per cent, while bituminous coal increased 9 per cent from January, 1917, to January, 1918.

RELATIVE RETAIL PRICES OF COAL IN TON LOTS FOR HOUSEHOLD USE, JAN. 15, 1907,
TO JAN. 15, 1918.

[Average price for 1913=100.]

Date.	Pennsylvania anthracite white ash.		Bituminous.
	Stove.	Chestnut.	
Jan. 15—			
1907.....	90	89	97
1908.....	91	91	98
1909.....	91	91	94
1910.....	91	91	95
1911.....	91	91	98
1912.....	92	93	95
1913.....	100	100	100
1914.....	96	97	101
1915.....	97	98	97
1916.....	99	100	96
1917.....	116	116	123
1918.....	123	122	133

PRICE CHANGES, WHOLESALE AND RETAIL, IN THE UNITED STATES.

A comparison of wholesale and retail price changes among important food articles in recent months, made by the Bureau of Labor Statistics of the United States Department of Labor, shows that the rise has been more pronounced for wholesale than for retail prices. This accords with the well-established principle that wholesale prices are more sensitive and respond more quickly to change-producing influences than retail prices. In collecting data for the comparison it was found that in some instances slight differences of grade or quality existed between the articles for which wholesale prices were obtainable and those for which retail prices could be secured. It was found impracticable, also, in most instances to obtain both kinds of quotations for the same date. The retail prices shown are uniformly those prevailing on the 15th of the month, while the wholesale prices are for a variable date, usually several days in advance of the 15th. For these reasons exact comparison of retail with wholesale prices can not be made. The figures are believed to be of interest, however, in contrasting price variations in the retail with those in the wholesale markets.

In the table which follows the wholesale price is in each case the mean of the high and the low quotations on the date selected, as published in leading trade journals, while the retail price is the average of all prices reported directly to the bureau by retailers for the article and city in question. The initials W. and R. are used to designate wholesale and retail prices, respectively.

WHOLESALE AND RETAIL PRICES OF IMPORTANT FOOD ARTICLES IN SELECTED CITIES.

[The initials W=wholesale; R=retail.]

Article and city.	Unit.	1913: Average for year.	July.			1917					1918
			1914	1915	1916	Jan.	Apr.	July.	Oct.	Dec.	Jan.
Beef:											
Steer loin ends (hips), Chic..W.	Lb..	\$0.168	\$0.175	\$0.160	\$0.205	\$0.200	\$0.200	\$0.190	\$0.235	\$0.235	\$0.200
Sirloin steak, Chicago.....R.	Lb..	.232	.260	.258	.281	.265	.293	.302	.306	.292	.302
Beef:											
Steer rounds, No. 2, Chic....W.	Lb..	.131	.145	.143	.145	.120	.155	.170	.190	.170	.165
Round steak, Chicago.....R.	Lb..	.202	.233	.228	.241	.227	.256	.266	.273	.260	.273
Beef:											
Steer ribs, No. 2, Chicago....W.	Lb..	.157	.165	.145	.175	.160	.210	.200	.230	.200	.200
Rib roast, Chicago.....R.	Lb..	.195	.212	.213	.229	.223	.241	.246	.247	.242	.254
Beef:											
No. 2 loins, New York.....W.	Lb..	.158	.183	.170	.200	.180	.190	.190	.275	.220	.235
Sirloin steak, New York.....R.	Lb..	.259	.274	.282	.294	.284	.318	.337	.356	.335	.344
Beef:											
No. 2 rounds, New York....W.	Lb..	.121	.135	.135	.145	.130	.170	.175	.190	.180	.180
Round steak, New York.....R.	Lb..	.249	.270	.271	.289	.275	.315	.337	.360	.342	.352
Beef:											
No. 2 ribs, New York.....W.	Lb..	.151	.165	.160	.180	.160	.200	.190	.275	.225	.235
Rib roast, New York.....R.	Lb..	.218	.225	.227	.243	.238	.270	.279	.298	.285	.294
Pork:											
Loins, Chicago.....W.	Lb..	.149	.165	.150	.165	.165	.240	.250	.330	.245	.270
Chops, Chicago.....R.	Lb..	.194	.204	.201	.217	.227	.285	.292	.358	.298	.316
Pork:											
Loins, Western, New York..W.	Lb..	.152	.163	.153	.165	.170	.235	.235	.300	.270	.265
Chops, New York.....R.	Lb..	.217	.230	.217	.239	.248	.319	.326	.399	.345	.348

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WHOLESALE AND RETAIL PRICES OF IMPORTANT FOOD ARTICLES IN SELECTED CITIES—Concluded.

Article and city.	Unit.	1913: Average for year.	July.			1917					1918
			1914	1915	1916	Jan.	Apr.	July.	Oct.	Dec.	Jan.
Bacon:											
Short clear sides, Chicago.... W.	Lb..	\$0.127	\$0.139	\$0.113	\$0.159	\$0.158	\$0.218	\$0.247	\$0.318	\$0.321	\$0.301
Sliced, Chicago..... R.	Lb..	.294	.318	.315	.328	.316	.395	.439	.475	.492	.498
Ham:											
Smoked, Chicago..... W.	Lb..	.166	.175	.163	.190	.188	.243	.243	.283	.303	.298
Smoked, sliced, Chicago..... R.	Lb..	.266	.338	.328	.349	.333	.382	.414	.439	.429	.428
Lard:											
Prime contract, New York... W.	Lb..	.110	.104	.080	.133	.159	.215	.201	.246	.261	.246
Pure, tub, New York..... R.	Lb..	.160	.156	.151	.168	.213	.263	.274	.313	.337	.330
Lamb:											
Dressed, round, Chicago.... W.	Lb..	.140	.170	.190	.190	.200	.220	.260	.270	.240	.240
Leg of, yearling, Chicago.... R.	Lb..	.198	.219	.208	.231	.232	.263	.287	.314	.286	.306
Poultry:											
Dressed fowls, New York.... W.	Lb..	.182	.188	.175	.215	.220	.265	.248	.285	.250	.298
Dressed hens, New York.... R.	Lb..	.214	.220	.219	.256	.261	.293	.287	.323	.307	.326
Butter:											
Creamery, extra, Chicago.... W.	Lb..	.310	.265	.265	.275	.370	.440	.375	.435	.475	.490
Creamery, extra, Chicago.... R.	Lb..	.362	.312	.322	.335	.438	.484	.432	.487	.530	.544
Butter:											
Creamery, extra, New York... W.	Lb..	.323	.280	.270	.285	.395	.459	.395	.443	.493	.510
Creamery, extra, New York... R.	Lb..	.382	.328	.336	.346	.460	.513	.453	.515	.548	.574
Butter:											
Creamery, extra, San Fran... W.	Lb..	.317	.245	.265	.255	.355	.390	.385	.460	.450	.500
Creamery, extra, San Fran... R.	Lb..	.388	.329	.338	.333	.425	.452	.455	.545	.538	.602
Cheese:											
Whole milk, Chicago..... W.	Lb..	.142	.133	.145	.145	.218	.223	.216	.246	.221	.233
Full cream, Chicago..... R.	Lb..	.....	.....	.229	.242	.321	.327	.339	.368	.366	.375
Cheese:											
Whole milk, State, N. Y.... W.	Lb..	.154	.144	.146	.151	.220	.245	.238	.255	.228	.230
Full cream, American, N. Y... R.	Lb..	.....	.....	.229	.228	.301	.335	.328	.340	.346	.344
Cheese:											
Fancy, San Francisco..... W.	Lb..	.159	.125	.115	.135	.180	.215	.200	.220	.230	.255
Full cream, San Francisco... R.	Lb..	.....	.....	.200	.229	.242	.297	.297	.316	.329	.335
Milk:											
Fresh, Chicago..... W.	Qt..	.038	.036	.037	.036	.045	.054	.047	.074	.070	.070
Fresh, bottled, Chicago..... R.	Qt..	.080	.080	.080	.081	.100	.100	.100	.129	.119	.119
Milk:											
Fresh, New York..... W.	Qt..	.035	.030	.030	.031	.051	.049	.050	.072	.072	.081
Fresh, bottled, New York... R.	Qt..	.090	.090	.090	.090	.100	.109	.114	.138	.140	.150
Milk:											
Fresh, San Francisco..... W.	Qt..	.039	.039	.038	.038	.038	.038	.043	.059	.059	.066
Fresh, bottled, San Fran.... R.	Qt..	.100	.100	.100	.100	.100	.100	.100	.121	.121	.121
Eggs:											
Fresh, firsts, Chicago..... W.	Doz.	.226	.188	.168	.218	.485	.305	.310	.370	.485	.565
Strictly fresh, Chicago..... R.	Doz.	.292	.261	.248	.296	.525	.376	.406	.469	.588	.651
Eggs:											
Fresh, firsts, New York.... W.	Doz.	.249	.215	.200	.241	.505	.330	.350	.400	.555	.645
Strictly fresh, New York.... R.	Doz.	.397	.333	.326	.372	.667	.424	.477	.627	.731	.808
Eggs:											
Fresh, San Francisco..... W.	Doz.	.268	.230	.220	.240	.380	.280	.320	.435	.450	.610
Strictly fresh, San Francisco. R.	Doz.	.373	.338	.310	.333	.480	.374	.392	.608	.566	.710
Flour:											
Winter patent, 1 Kans. City. W.	Bbl.	4.012	3.550	6.225	4.750	8.950	11.450	11.150	10.500	10.000	10.100
Aristos, Kansas City..... R.	Bbl.	5.923	5.733	7.800	6.700	10.600	13.689	13.680	13.066	12.150	12.200
Flour:											
Standard patent, 1 Minn.... W.	Bbl.	4.584	4.500	7.025	6.050	9.450	11.025	12.060	10.550	10.150	10.075
Pillsbury's Best, Minn..... R.	Bbl.	5.600	5.800	8.200	7.000	10.800	13.200	13.424	11.984	11.300	11.368
Flour:											
Fancy patent, 1 St. Louis... W.	Bbl.	4.181	3.700	5.800	4.925	8.675	11.375	11.375	11.250	10.525	10.425
Gold Medal, St. Louis..... R.	Bbl.	6.077	6.000	8.187	6.933	10.587	12.853	13.200	13.100	12.300	11.733
Corn meal:											
Fine, yellow, New York.... W.	Lb..	.014	.014	.017	.019	.027	.031	.040	.049	.048	.048
Fine, yellow, New York.... R.	Lb..	.034	.034	.035	.042	.051	.057	.070	.082	.085	.082
Beans:											
Medium, choice, N. Y..... W.	Lb..	.040	.040	.058	.098	.108	.130	.154	.138	.141	.141
Navy, white, New York.... R.	Lb..	.....	.....	.081	.113	.149	.162	.188	.185	.186	.185
Potatoes:											
White, good to choice, Chic.. W.	Bu..	.614	1.450	.400	.975	1.750	2.800	2.625	1.135	1.080	1.185
White, Chicago..... R.	Bu..	.900	1.640	.700	1.856	2.370	3.455	2.975	1.660	1.562	1.680
Rice:											
Head, New Orleans..... W.	Lb..	.050	.054	.049	.046	.048	.049	.071	.077	.079	.088
Head, New Orleans..... R.	Lb..	.....	.....	.075	.074	.074	.088	.101	.100	.108	.106
Sugar:											
Granulated, New York..... W.	Lb..	.043	.042	.059	.075	.066	.081	.074	.082	.080	.073
Granulated, New York..... R.	Lb..	.049	.046	.063	.079	.074	.087	.084	.097	.099	.097

Beginning in January, 1918, War Standard flour.

Wholesale and retail prices, expressed as percentages of the average money prices for 1913, are contained in the table which follows. A few articles included in the preceding table are omitted from this one, owing to lack of satisfactory data for 1913. It will be seen from the table that since the beginning of 1917 the retail prices of most of the commodities included in the exhibit have fluctuated at a lower percentage level, as compared with their 1913 base, than have the wholesale prices. This is particularly noticeable in the case of pork, bacon, lard, dressed lamb, butter, milk, eggs, flour, corn meal, and potatoes. For corn meal, especially, there has been a much smaller percentage of increase in the retail than in the wholesale price. Comparing January, 1918, prices with the average for 1913, it is seen that only 4 articles of the 28 included in the table show a larger per cent of increase in the retail than in the wholesale price. These are beef in Chicago (three price series) and granulated sugar in New York. In most of the months of 1917 the retail prices of these articles were relatively lower than were the wholesale prices.

While the percentage of increase in retail prices was less than that in wholesale prices for most of the articles, it should be noted that a comparison of the actual prices shown in the preceding table indicates that in the majority of cases the margin between the wholesale and the retail price in January, 1918, was considerably greater than in 1913. The following table shows, for example, that the wholesale price of bacon increased 137 per cent between 1913 and January, 1918, while the retail price increased only 69 per cent during the same period. The preceding table shows, however, that the difference between the wholesale price and the retail price of bacon was 16.7 cents per pound in 1913 and 19.7 cents per pound in January, 1918, thus allowing the retailer 3 cents per pound more at the latter date for the part he took in the distribution.

RELATIVE WHOLESALE AND RETAIL PRICES OF IMPORTANT FOOD ARTICLES IN SELECTED CITIES (AVERAGE FOR 1913=100).

[The initials W=wholesale; R=retail.]

Article and city.	1913: Average for year.	July.			1917					1918
		1914	1915	1916	Jan.	Apr.	July.	Oct.	Dec.	
Beef:										
Steer loin ends (hips), Chicago...W..	100	104	95	122	119	119	113	140	140	119
Sirloin steak, Chicago.....R..	100	112	111	121	114	126	130	132	126	130
Beef:										
Steer rounds, No. 2, Chicago....W..	100	111	109	111	92	118	130	145	130	126
Round steak, Chicago.....R..	100	115	113	119	112	127	132	135	129	135
Beef:										
Steer ribs, No. 2, Chicago.....W..	100	105	92	111	102	134	127	146	127	127
Rib roast, Chicago.....R..	100	109	109	117	114	124	126	127	124	130
Beef:										
No. 2 loins, city, New York....W..	100	116	108	127	114	120	120	174	139	149
Sirloin steak, New York.....R..	100	106	109	114	110	123	130	137	129	133

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RELATIVE WHOLESALE AND RETAIL PRICES OF IMPORTANT FOOD ARTICLES IN
SELECTED CITIES (AVERAGE FOR 1913=100)—Concluded.

Article and city.	1913: Average for year.	July.			1917					1918
		1914	1915	1916	Jan.	Apr.	July.	Oct.	Dec.	Jan.
Beef:										
No. 2 rounds, city, New York...W..	100	112	112	120	107	140	145	157	149	149
Round steak, New York.....R..	100	108	109	116	110	127	135	145	137	141
Beef:										
No. 2 ribs, city, New York....W..	100	109	106	119	106	132	126	182	149	156
Rib roast, New York.....R..	100	103	104	111	109	124	123	137	131	135
Pork:										
Loins, Chicago.....W..	100	111	101	111	111	161	168	221	164	181
Chops, Chicago.....R..	100	107	106	114	119	150	154	188	157	166
Pork:										
Loins, western, New York.....W..	100	107	101	109	112	155	155	197	178	174
Chops, New York.....R..	100	106	100	110	114	147	150	184	159	160
Bacon:										
Short, clear sides, Chicago.....W..	100	109	89	125	124	172	194	250	253	237
Sliced, Chicago.....R..	100	108	107	112	107	134	149	162	167	169
Hams:										
Smoked, Chicago.....W..	100	105	98	114	113	146	146	170	183	180
Smoked, sliced, Chicago.....R..	100	127	123	131	125	144	156	165	161	161
Lard:										
Prime, contract, New York.....W..	100	95	73	121	145	195	183	224	237	224
Pure, tub, New York.....R..	100	98	94	105	133	164	171	196	211	206
Lamb:										
Dressed, round, Chicago.....W..	100	114	128	128	134	148	174	181	161	161
Leg of, yearling, Chicago.....R..	100	111	105	117	117	133	145	159	144	155
Poultry:										
Dressed fowls, New York.....W..	100	103	96	118	121	146	136	157	137	164
Dressed hens, New York.....R..	100	103	102	120	122	137	134	151	143	152
Butter:										
Creamery, extra, Chicago.....W..	100	85	85	89	119	142	121	140	153	158
Creamery, extra, Chicago.....R..	100	86	89	93	121	134	119	135	146	150
Butter:										
Creamery, extra, New York....W..	100	87	84	88	122	139	122	137	153	158
Creamery, extra, New York.....R..	100	86	88	91	120	134	119	135	143	150
Butter:										
Creamery, extra, San Francisco.W..	100	77	84	80	112	123	121	145	142	167
Creamery, extra, San Francisco.R..	100	85	87	86	110	116	117	140	139	155
Milk:										
Fresh, Chicago.....W..	100	95	97	95	118	142	124	195	184	184
Fresh, bottled, delivered, Chicago.R..	100	100	100	101	125	125	125	161	149	149
Milk:										
Fresh, New York.....W..	100	86	86	89	146	140	143	206	206	231
Fresh, bottled, delivered, N. Y....R..	100	100	100	100	111	121	127	153	156	167
Milk:										
Fresh, San Francisco.....W..	100	100	97	97	97	97	110	151	151	169
Fresh, bottled, San Francisco.....R..	100	100	100	100	100	100	100	121	121	121
Eggs:										
Fresh, firsts, Chicago.....W..	100	83	74	96	215	135	137	164	215	250
Strictly fresh, Chicago.....R..	100	89	85	101	180	129	139	161	201	223
Eggs:										
Fresh, firsts, New York.....W..	100	86	80	97	203	133	141	161	223	259
Strictly fresh, New York.....R..	100	89	82	94	168	107	120	158	184	204
Eggs:										
Fresh, San Francisco.....W..	100	86	82	90	142	105	119	162	168	228
Strictly fresh, San Francisco.....R..	100	91	83	89	129	100	105	163	160	190
Flour:										
Winter patent, ¹ Kansas City...W..	100	89	155	118	223	285	278	262	249	252
Aristo, Kansas City.....R..	100	97	132	113	179	231	231	221	205	206
Flour:										
Standard patent, ¹ Minneapolis..W..	100	98	153	132	206	241	262	230	221	220
Pillsbury's Best, Minneapolis....R..	100	104	146	125	193	236	240	214	202	203
Flour:										
Fancy patent, ¹ St. Louis.....W..	100	88	139	118	207	272	272	269	252	249
Gold Medal, St. Louis.....R..	100	99	135	114	174	212	217	216	202	193
Corn meal:										
Fine, yellow, New York.....W..	100	100	121	136	193	221	286	350	343	343
Fine, yellow, New York.....R..	100	100	103	124	150	168	206	241	250	241
Potatoes:										
White, good to choice, Chicago..W..	100	235	65	159	285	456	428	185	176	193
White, Chicago.....R..	100	182	78	151	263	384	331	184	174	187
Sugar:										
Granulated, New York.....W..	100	98	137	174	153	188	172	191	186	170
Granulated, New York.....R..	100	94	129	161	151	178	171	198	202	198

¹Beginning in January, 1918, War Standard flour.

COST OF LIVING IN THE PHILADELPHIA SHIPBUILDING DISTRICT.

The following table shows the summary results of an investigation just made by the Bureau of Labor Statistics in cooperation with the Shipbuilding Wage Adjustment Board of the Emergency Fleet Corporation into the cost of living in the Philadelphia shipbuilding district.

Schedules covering in detail the income and expenditure for the year 1917 of 512 families were secured through personal visits of the agents of the Bureau of Labor Statistics to the homes of families of workers in shipbuilding establishments and others in the localities in which shipbuilding workers reside.

The second column of the table shows the average expenditures per family for the year 1917 for each of the principal items that enter into the cost of living. The third column shows in the form of percentages the proportion of the total amount expended for each item. The last column shows the average percentage of increase in the different items of expenditure of these families from 1914 to 1917. The total increase is a weighted average obtained by multiplying the percentage of increase in the retail prices from 1914 to 1917 by the percentage of expenditure item by item in 1917.

Information as to the increase in the retail prices from 1914 to 1917 of each of the various items of cost of living was obtained, by personal visits of the agents of the Bureau, from retail dealers patronized by workers in the same localities.

AVERAGE EXPENDITURE OF 512 FAMILIES IN PHILADELPHIA SHIPBUILDING DISTRICT IN 1917, FOR EACH OF THE PRINCIPAL ITEMS OF COST OF LIVING, PER CENT OF AVERAGE TOTAL EXPENDITURE, AND PER CENT OF INCREASE FROM 1914 TO 1917.

Items of expenditure.	Expenditures per family in 1917.		Per cent of increase from 1914 to 1917.
	Average.	Per cent.	
Clothing:			
Males.....	\$117.87	8.43	54.11
Females.....	105.46	7.54	49.12
Total.....	223.33	15.97	51.33
Furniture and furnishings.....	63.26	4.52	49.84
Food.....	605.85	43.31	54.41
Housing.....	168.36	12.04	2.60
Fuel and light.....	69.22	4.95	21.54
Miscellaneous.....	268.81	19.22	43.81
Total.....	1,398.83	100.00	43.81

WHOLESALE PRICES IN THE UNITED STATES AND FOREIGN COUNTRIES, 1890 TO 1917.

In the following table the more important index numbers of wholesale prices in the United States and several foreign countries, as compiled by recognized authorities, have been reduced to a common base in order that the trend of prices as shown by these index numbers

may be compared. The results here shown have been obtained by merely shifting the base for each series of index numbers to the year 1913—i. e., by dividing the index for 1913 on the original base into the index for each year or month on that base. These results are therefore to be regarded only as approximations of the correct index numbers for series constructed by averaging the relative prices of individual commodities. This applies to the index numbers of the Annalist, Gibson, the Economist, Sauerbeck, and the Department of Labor of Canada. The index numbers of the Bureau of Labor Statistics, Bradstreet, Dun, and the Bureau of Census and Statistics of Australia are built on aggregates of actual money prices, or relatives made from such aggregates of actual prices.

WHOLESALE PRICES IN THE UNITED STATES AND CERTAIN FOREIGN COUNTRIES.

Year and month.	Index numbers expressed as percentages of the index number for 1913.								
	United States.					United Kingdom.		Canada.	Australia.
	Bureau of Labor Statistics: 294 commodities (variable).	Annalist: 25 commodities.	Bradstreet: 96 commodities.	Dun: 200 commodities.	Gibson: 22 commodities.	Economist: 44 commodities.	Sauerbeck: 45 commodities.	Department of Labor: 272 commodities (variable).	Bureau of Census and Statistics: 92 commodities.
1890.....	81	78	.....	175	75	183	85	81	97
1895.....	70	68	70	167	72	72	73	71	70
1900.....	80	71	86	77	76	82	88	80	82
1905.....	86	79	88	83	81	81	85	84	84
1910.....	100	98	98	98	102	90	92	92	92
1913.....	100	100	100	100	100	100	100	100	100
1914.....	99	104	97	101	105	99	100	100	106
1915.....	100	106	107	105	110	123	127	110	147
1916.....	123	126	128	123	129	160	160	134	138
1917.....	175	187	170	169	191	204	205	174	.....
1914.									
January...	100	102	97	103	100	97	98	101	² 100
April.....	98	101	95	99	99	96	96	101	² 102
July.....	99	104	94	99	101	95	104	99	² 109
October...	99	107	100	102	108	101	106	102	² 113
1915.									
January...	98	108	99	103	111	112	118	103	² 127
April.....	99	109	106	103	117	124	125	108	² 153
July.....	101	105	107	103	111	122	126	111	² 167
October...	101	101	108	105	103	125	134	112	² 142
1916.									
January...	110	110	119	114	113	143	149	127	² 138
April.....	116	118	128	121	123	156	157	132	² 137
July.....	119	121	125	120	124	156	157	132	² 138
October...	133	136	131	126	141	171	175	138	² 139
1917.									
January...	150	151	149	140	150	184	187	154	² 140
February...	155	159	151	146	156	188	193	160	.....
March.....	160	170	154	154	166	197	199	163	.....
April.....	171	188	158	157	188	200	203	169	² 146
May.....	181	203	164	172	204	201	205	177	.....
June.....	184	198	168	176	197	210	211	179	.....
July.....	185	189	175	175	200	208	208	179	.....
August.....	184	190	178	181	203	210	207	181	.....
September...	182	195	181	178	206	209	207	179	.....
October...	180	200	184	182	207	212	212	179	.....
November...	182	199	185	183	206	214	214	183	.....
December...	181	200	191	182	209	217	218	187	.....

¹ Average for January and July.² Quarter beginning in specified month.

PRICES IN CANADA DURING 1917.

The January, 1918, issue of the Labor Gazette, published by the Canadian Department of Labor, in giving a résumé of prices during 1917, includes a table showing the index numbers of wholesale prices of 19 commodity groups for specified months in 1914, 1915, 1916, and for each month in 1917, the average prices for 1890 to 1899 being taken as the base, or 100; also a table showing the cost per week of a family budget of staple foods, fuel and lighting, and rent in terms of the average price in 60 cities in Canada, covering the same period. The following are the index numbers for the 19 commodity groups in January of each year and in December, 1917:

INDEX NUMBERS OF WHOLESALE PRICES, BY GROUPS OF COMMODITIES, IN JANUARY, 1914, 1915, 1916, AND 1917, AND DECEMBER, 1917.

[1890 to 1899=100.]

Commodity group.	Index number in January—				Index number in December, 1917.
	1914	1915	1916	1917	
Grains and fodder.....	140.9	191.7	181.0	253.7	314.1
Animals and meats.....	194.2	177.9	196.3	249.2	311.8
Dairy products.....	179.9	177.5	186.7	233.3	253.9
Fish.....	153.9	160.0	163.7	183.8	239.1
Fruits and vegetables.....	125.2	115.1	160.6	234.9	255.2
Miscellaneous foods.....	112.9	133.4	143.2	176.7	226.5
Textiles.....	135.2	126.1	174.2	216.4	322.8
Hides, leather, and boots.....	168.1	178.1	193.5	285.9	273.1
Metals.....	114.7	112.6	198.4	210.9	260.4
Implements.....	106.6	107.5	116.6	156.5	193.1
Fuel and lighting.....	113.6	108.9	122.0	159.7	170.0
Lumber.....	183.5	178.0	178.1	185.8	231.9
Miscellaneous building materials.....	114.0	108.2	132.4	179.6	209.1
Paints, oils, and glass.....	140.2	142.9	193.9	213.0	291.2
House furnishings.....	128.8	131.9	146.7	168.9	208.1
Drugs and chemicals.....	111.1	135.0	250.4	236.7	270.1
Raw furs.....	226.5	121.8	269.6	399.5	495.4
Liquors and tobacco.....	138.8	137.9	136.7	167.2	196.5
Sundries.....	109.3	113.6	135.1	155.5	196.8
All commodities.....	136.5	138.9	172.1	208.1	253.5

The changes in the weekly cost of a family budget from January, 1914, to December, 1917, are traced in the following table:

COST PER WEEK OF A FAMILY BUDGET OF FOOD, FUEL AND LIGHTING, AND RENT IN JANUARY OF EACH YEAR, 1914 TO 1917, AND IN DECEMBER, 1917, IN 60 CITIES.

Item.	Cost in January—				Cost in December, 1917. ¹	Per cent of increase December, 1917, over January, 1914.
	1914	1915	1916	1917		
Foods.....	\$7.73	\$7.97	\$8.28	\$10.27	\$12.24	58.3
Fuel and lighting.....	1.90	1.90	1.85	2.13	2.64	38.9
Rent.....	4.83	4.37	3.98	4.03	4.45	27.9
Total.....	14.46	14.24	14.11	16.43	19.33	33.7

¹ Two cities omitted.

² Decrease.

The report states that the greatest increases in the cost of foods during the year were in meats, eggs, butter, flour, beans, sugar, and potatoes.

WHOLESALE PRICE BULLETIN FOR 1916.

A study of wholesale prices during 1916, covering 342 important commodities, or series of quotations, is contained in Bulletin 226, just issued by this bureau. This report is the latest one of a series published annually since 1902. In addition to detailed data for 1916 average prices are shown for each year back to 1890. The bulletin is of especial interest as showing the changes in wholesale prices during the second year of the War, while the United States was still neutral, and because of the large amount of detailed information which it presents.

The upward movement of wholesale prices which began in the latter part of 1915 continued without interruption through the whole of 1916, becoming most pronounced in the closing months of the year. In December the weighted index number for all the articles studied stood at 118, as compared with 89 in January, indicating an average increase in wholesale prices of nearly 33 per cent, and the increase over the level of prices in December, 1914, was more than 49 per cent.

During 1916 phenomenal advances were recorded in the prices of many commodities belonging to the groups designated as farm products, food, cloths and clothing, fuel and lighting, and metals and metal products. In December as compared with January there was an increase of 30 per cent in average wholesale prices of farm products, which include many food articles in the raw state, 28 per cent in wholesale prices of food, 40 per cent in cloths and clothing, 60 per cent in fuel and lighting, and 47 per cent in metals and metal products. Drugs and chemicals, which showed a steady increase during the first five months, fell to the lowest point of the year in August and September, afterwards increasing until in December they were 2 per cent higher than in January. House-furnishing goods were 9 per cent and lumber and building materials 7 per cent higher in December than in January. The miscellaneous group, which includes such important articles as cottonseed meal and oil, lubricating oil, malt, news-print and wrapping paper, rubber, plug and smoking tobacco, whisky, and wood pulp, rose steadily in price, being 27 per cent higher in December than in January. Of 342 comparable price series secured by the bureau for 1915 and 1916, 318 showed increases in the latter year, 13 showed decreases, and 11 showed no change.

COST OF LIVING IN PORTUGAL.¹

In the current issue of the journal of the Portuguese Ministry of Labor and Social Affairs² are published for the first time (in an article under the above heading) official index numbers intended to show the manner in which the general level of household expenses has been affected by the upward movement of prices of food and certain other necessities in that country since the outbreak of the War. In Portugal questions relating to the cost of living are in charge of the Department of Economic Defense, attached to the Ministry of Labor and Social Affairs. Immediately upon its formation that department arranged to be supplied regularly each month with particulars of the retail prices of 30 commodities coming within the definitions of food, lighting, fuel, and washing materials. The department has adopted the method already employed by the official statisticians of most countries for computing changes in the general level of food prices (or in the food-purchasing power of money), viz, the method which assumes a fixed standard of family consumption and calculates the changes in the cost of maintaining that standard according to the retail prices returned as prevailing at different dates.

As the result of an inquiry into the economic conditions of the working classes, the Portuguese Ministry of Labor and Social Affairs concludes that in Portugal, in the course of a year, a working-class family of four persons consumes on an average the following quantities of the articles mentioned: Bread, 800 kilograms (1,763.7 pounds); potatoes, 250 (551.2 pounds); beef, 90 (198.4 pounds); mutton, 20 (44.1 pounds); rice, 30 (66.1 pounds); codfish, 30 (66.1 pounds); oil, 40 liters (10.6 gallons); coffee, 12 kilograms (26.5 pounds); beans and corn, 150 liters (4.3 bushels); milk, 180 liters (47.6 gallons); eggs, 40 dozen; sugar, 50 kilograms (110.2 pounds); lard or other fat, 10 (22 pounds); sausage, 12 (26.5 pounds); bacon, 12 (26.5 pounds); wine, 400 liters (105.7 gallons); coal, 500 kilograms (1,102.3 pounds); petroleum, 50 liters (13.2 gallons); and soap, 100 kilograms (220.5 pounds).

¹ The British Labour Gazette (London) for January, 1918, p. 8.

² Boletim da Previdência Social, Ano 1, April-August, 1917. Lisbon.

The general level of prices in the year 1913 in each of the two principal cities in Portugal being taken as 100, the levels prevailing in each of the first six months of 1917 are found to have been the following:

1917	Lisbon (1913=100).	Oporto (1913=100).
January.....	158.3	148.6
February.....	166.6	149.7
March.....	171.8	165.7
April.....	164.0	172.7
May.....	169.8	180.3
June.....	165.0	184.6

Taking the average of the June index numbers for Lisbon and Oporto in the above table, viz, 174.8, having ascertained by means of the inquiry already referred to that in working-class families the proportionate expenditure on each of the four groups of necessities—(a) food, (b) fuel and lighting, (c) rent, (d) clothing, and miscellaneous—is represented by the percentages 75, 10, 10, and 5, respectively, assuming further that the price of clothing has doubled since 1914, and that other classes of expenditure have remained constant, the statistician of the Portuguese Ministry of Labor and Social Affairs concludes that in June, 1917, about 66 per cent more would have had to be spent than had to be spent per month on the average in 1913 to maintain the same working-class standard of living.

WAGES AND HOURS OF LABOR.

RATES OF WAGES PAID TO WORKERS PLACED BY EMPLOYMENT OFFICES IN THE UNITED STATES, JANUARY, 1918.

In the table which follows are given the rates of wages paid to workers placed in employment by employment offices in the United States on the last day of January, 1918, or the date in January nearest the last day on which workers were placed, in 33 selected occupations. Data are presented for 122 employment offices, comprising 43 Federal employment offices, 3 Federal-municipal employment offices, 6 Federal-State employment offices, 1 Federal-State-municipal employment office, 2 Federal-State-county-municipal employment offices, 7 municipal employment offices, 1 municipal-private employment office, 41 State employment offices, 1 State-county-municipal employment office, and 17 State-municipal employment offices in 38 States and the District of Columbia.

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RATES OF WAGES PAID TO WORKERS PLACED IN EMPLOYMENT

[Fed.=Federal; Sta.=State; Co.=County; Mun.=Municipal; Pri.=

State, city, and kind of office.	Blacksmiths.	Boilermakers.	Bricklayers.	Carpenters.	Cleaners and scrubbers, female.
Alabama:					
Mobile (Fed.).....		\$4.50 d.	\$4.00 d.	\$0.50 h.	
Arizona:					
Phoenix (Fed.-Sta.-Co.-Mun.).....	\$5.50 d.	5.50 d.		5.50 d.	\$0.35 h.
Arkansas:					
Little Rock (Fed.).....	.55 h.	.60 h.		.60 h.	
California:					
Eureka (Fed.).....					
Fresno (Fed.).....			8.00 d.	5.00 d.	.30 h.
Los Angeles (Fed.).....	5.00 d.	5.00 d.	4.50-5.00 d.	4.50-5.00 d.	.30 h.
Los Angeles (Sta.-Mun.).....	4.00 d.	.50 h.	5.00 d.	4.00 d.	.25 h.
Sacramento (Fed.).....					
San Diego (Fed.).....				4.50-5.00 d.	.25-.30 h.
San Francisco (Fed.).....	.50 h.	5.38 d.		² 6.50 d.	.30 h.
Santa Barbara (Fed.).....				4.50 d.	
Colorado:					
Colorado Springs (Sta.).....					.25 h.
Denver (Fed.).....					
Denver No. 1 (Sta.).....				5.00 d.	2.50 d.
Denver No. 2 (Sta.).....	5.00 d.			6.00 d.	
Pueblo (Sta.).....	.37½ h.			² 2.75 d.	2.00 d.
Connecticut:					
Bridgeport (Fed.-Sta.).....	.55 h.				.25 h.
Bridgeport (Sta.).....	.55 h.				.25 h.
Hartford (Sta.).....					.30 h.
New Haven (Sta.).....					.25 h.
Norwich (Sta.).....					
Waterbury (Sta.).....					
Delaware:					
Wilmington (Fed.-Mun.).....				.62½ h.	
District of Columbia:					
Washington (Fed.).....	.62½ h.			.62½ h.	
Florida:					
Jacksonville (Fed.).....				.45 h.	
Miami (Fed.).....					
Georgia:					
Savannah (Fed.).....	4.00 d.	5.00 d.	5.00 d.	4.00 d.	1.00 d.
Idaho:					
Boise (Mun.).....	5.00 d.			.62½ h.	.35 h.
Moscow (Fed.).....	4.00 d.	5.28 d.	6.00 d.	5.50 d.	1.50 d.
Illinois:					
Chicago (Fed.).....	.50 h.	.50 h.			2.10-2.65 d.
Chicago (Sta.).....	.37½-.70 h.	.60 h.	.50 h.	.35-.62½ h.	2.10 d.
East St. Louis (Sta.).....	.48 h.	.50 h.	.87½ h.	.70 h.	.15 h.
Peoria (Sta.).....	4.00 d.			.60 h.	2.00 d.
Rockford (Sta.).....		.45 h.	.75 h.	.62½ h.	.25 h.
Rock Island-Moline (Sta.).....	.65 h.	.52-.75 h.	.75 h.	.62½ h.	.25 h.
Springfield (Sta.).....	.50-.65 h.	.30-.60 h.	.90 h.	.55 h.	1.50 d.
Indiana:					
Evansville (Sta.).....					4.00 w.
Indianapolis (Fed.).....	3.92 d.			.45 h.	1.50 d.
Indianapolis (Sta.).....		.40 h.		.56 h.	1.50 d.
South Bend (Sta.).....				.45 h.	.20 h.
Terre Haute (Sta.).....		.50 h.		.55 h.	
Iowa:					
Des Moines (Fed.-Sta.).....				.39 h.	
Kentucky:					
Louisville (Sta.).....				.50 h.	6.00 w.
Louisville (Mun.-Pri.).....				.50 h.	
Louisiana:					
New Orleans (Fed.).....	.62½ h.	.62½ h.	.65 h.	³ .62½ h.	1.00 d.
Maryland:					
Baltimore (Fed.).....	.37-.66 h.	.46-.59 h.		.62½ h.	1.00 d.
Massachusetts:					
Springfield (Sta.).....	.50 h.	.47-.60 h.	.56 h.	22.00-25.00 w.	¹ 5.00 w.
Michigan:					
Battle Creek (Sta.).....		.45 h.		.55 h.	.25 h.
Bay City (Sta.).....					
Detroit (Sta.).....	.50 h.	.65 h.	.75 h.	.55 h.	.25 h.
Flint (Sta.).....	.55 h.	.50 h.	.65 h.	.55 h.	.25 h.
Grand Rapids (Sta.).....				.50 h.	.20 h.
Jackson (Sta.).....	.45 h.	.45 h.	.75 h.	.55 h.	.25 h.
Kalamazoo (Sta.).....				.40-.50 h.	.25 h.
Lansing (Sta.).....	.50 h.		.60 h.	.55 h.	.30 h.
Muskegon (Sta.).....					
Saginaw (Sta.).....					1.00 d.
Minnesota:					
Minneapolis (Fed.).....	3.00-4.00 d.	.40-.60 h.	.75 h.	.55 h.	.35 h.
St. Paul (Sta.).....	.44 h.	.43 h.	.70 h.	.55 h.	.30 h.

¹ And board.² And found.³ Ship carpenters.

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BY EMPLOYMENT OFFICES IN THE UNITED STATES, JANUARY, 1918.

Private; h.=hour; d.=day; w.=week; m.=month; y.=year.]

Cooks, male.	Cooks, female.	Drivers, teamsters, etc.	Dock laborers.	Farm hands.	Hod carriers.
			\$2.00 d.	\$1.25 d.	
\$75.00 m.	\$50.00 m.	\$3.00 d.		¹ 2.00 d.	
85.00 m.	8.00 w.	2.50 d.		35.00 m.	\$0.30 h.
70.00 m.	35.00 m.	3.00 d.		2.00 d.	
¹ 20.00 w.	15.00 w.	2.75 d.	.60 h.	¹ 2.00 d.	4.00-5.00 d.
60.00m-18.00 w.	10.00 w.	2.75 d.		25.00-40.00 m.	4.00 d.
				² 2.00 d.	
2.50-3.00 d.	40.00 m.	2.75 d.		² 35.00-40.00 m.	
	40.00 m.	2.50 d.		¹ 2.00 d.	
¹ 17.50 w.	⁴ 1.00 d.	3.00 d.		⁴ 30.00 m.	
50.00 m.	40.00 m.	3.00 d.		40.00 m.	
90.00 m.		3.00 d.		² 60.00 m.	
¹ 40.00 m.	10.00 w.	2.50 d.		⁴ 40.00 m.	3.75 d.
21.00 w.	35.00 m.	16.00 w.		35.00 m.	
21.00 w.	35.00 m.	18.00 w.		35.00 m.	
14.00 w.				40.00 m.	
18.00 w.	12.00 w.	18.00 w.		35.00 m.	
20.00 w.	10.00 w.			30.00 m.	
				25.00 m.	
	5.00-7.00 w.				
65.00 m.		15.00 w.		25.00 m.	
50.00 m.				1.75 d.	
5.00 w.	4.00 w.	1.75 d.	2.25 d.	1.50 d.	1.75 d.
90.00 m.	60.00 m.	4.50 d.		60.00 m.	
75.00 m.	45.00 m.	75.00 m.		¹ 50.00 m.	3.50 d.
	9.00-15.00 w.	18.00-21.00 w.		35.00-50.00 m.	
⁴ 25.00-40.00 w.	10.00-15.00 w.	15.00 w.	.35 h.	35.00-40.00 m.	
10.00 w.	6.00 w.	3.00 d.	3.00 d.	35.00 m.	.50 h.
11.00 w.	9.00 w.	16.00 w.		35.00 m.	.40 h.
12.00-15.00 w.	10.00-12.00 w.	35.00-40.00 m.		45.00-50.00 m.	.40-50 h.
18.00 w.	8.00 w.	3.00 d.	6.00 d.	40.00 m.	.42 ¹ h.
10.00-30.00 w.	6.00-12.00 w.	.25-.35 h.		30.00-45.00 m.	3.00 d.
		2.00 d.		25.00 m.	
	6.00 w.	.25 h.		30.00 m.	
80.00 m.	8.00 w.	2.50 d.		30.00-35.00 m.	
16.00 w.	10.00 w.	16.00 w.		30.00 m.	
		2.00-2.25 d.		25.00 m.	
				35.00 m.	
40.00 m.	5.00 w.			⁶ 30.00 m.	
⁴ 25.00 m.		2.65 d.		¹ 35.00 m.	
14.00 w.	⁴ 5.00 w.	.45 h.	.25 h.	30.00 m.	.40 h.
18.00-30.00 w.	7.00 w.	3.50 d.			
15.00 w.		15.00-17.00 w.		30.00-35.00 m.	
12.00-14.00 w.	8.00 w.	18.00 w.		15.00-20.00 m.	
¹ 15.00 w.	¹ 12.00 w.	3.25 d.	.30 h.	24.00-32.00 m.	
25.00 w.	15.00 w.	3.00 d.		25.00 m.	.40 h.
⁴ 40.00 m.	⁴ 6.00 w.	15.00 w.	.30 h.	26.00 m.	.35 h.
60.00-80.00 m.	50.00-75.00 m.	2.90 d.	.31 h.	⁴ 26.00 m.	
15.00 w.	10.00 w.	16.00 w.		30.00-35.00 m.	.33 h.
				25.00 m.	
	6.00 w.	2.80 d.		35.00 m.	
				1.50 d.	
60.00-75.00 m.	7.00-15.00 w.	15.00-18.00 w.	2.50-3.00 d.	20.00-50.00 m.	.50 h.
50.00 m.	25.00 m.	3.10 d.	.30 h.	35.00-45.00 m.	3.00 d.

⁴ And board and room

⁵ Rough carpenters

⁶ And house.

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RATES OF WAGES PAID TO WORKERS PLACED IN EMPLOYMENT BY

State, city, and kind of office.	House servants.	Inside wiremen.	Laborers.	Laundry operatives, male.	Laundry operatives, female.
Alabama:					
Mobile (Fed.).....			\$0.25 ¹ h.		
Arizona:					
Phoenix (Fed.-Sta.-Co.-Mun.).....	\$10.00 w.		¹ 2.00 d.		
Arkansas:					
Little Rock (Fed.).....	5.00 w.	\$0.75 h.	.30 h.		
California:					
Eureka (Fed.).....			3.00 d.		
Fresno (Fed.).....			3.00 d.		
Los Angeles (Fed.).....	30.00 m.	5.00 d.	2.75 d.	\$15.00 w.	\$10.00 w.
Los Angeles (Sta.-Mun.).....	35.00 m.	4.00 d.	2.50-2.75 d.	16.00 w.	8.00-10.00 w.
Sacramento (Fed.).....					
San Diego (Fed.).....	20.00-35.00 m.		2.75-3.00 d.		1.50-2.00 d.
San Francisco (Fed.).....			3.00 d.		10.00 w.
Santa Barbara (Fed.).....			3.25 d.		
Colorado:					
Colorado Springs (Sta.)...	30.00 m.		.35 h.	12.00 w.	1.50 d.
Denver (Fed.).....			.25 h.		
Denver No. 1 (Sta.).....	40.00 m.		2.50 d.		
Denver No. 2 (Sta.).....	² 35.00 m.		.30 h.		9.00 w.
Pueblo (Sta.).....	25.00 m.		.30 h.		
Connecticut:					
Bridgeport (Fed.-Sta.)...	30.00 m.		.30 h.	.30 h.	.25 h.
Bridgeport (Sta.).....	12.00 w.		.35 h.		.25 h.
Hartford (Sta.).....	6.00 w.		.35 h.	15.00 w.	.25 h.
New Haven (Sta.).....	7.00 w.		3.00 d.	15.00 w.	15.00 w.
Norwich (Sta.).....	25.00 m.		3.25 d.		
Waterbury (Sta.).....	25.00 m.				8.00 w.
Delaware:					
Wilmington (Fed.-Mun.)...	5.00-7.00 w.		.25-.35 h.		
District of Columbia:					
Washington (Fed.).....	30.00 m.		.30 h.		
Florida:					
Jacksonville (Fed.).....			2.25 d.		
Miami (Fed.).....			.25 h.		
Georgia:					
Savannah (Fed.).....	3.50 d.	3.50 d.	1.75 d.	6.00 w.	5.00 w.
Idaho:					
Boise (Mun.).....	30.00 m.		3.50-4.00 d.		
Moscow (Fed.).....	5.00 w.	95.00 m.	3.50 d.	20.00 w.	.22 h.
Illinois:					
Chicago (Fed.).....	7.00-10.00 w.		.32 h.		9.00 w.
Chicago (Sta.).....	6.00-10.00 w.		.27 ¹ -.35 h.		² 25.00 m.
East St. Louis (Sta.).....	5.00 w.	.75 h.	3.00 d.	20.00 w.	9.00 w.
Peoria (Sta.).....	6.00 w.		.35 h.		2.00 d.
Rockford (Sta.).....	6.00 w.	.65-.75 h.	.40-.50 h.	12.00-14.00 w.	8.00 w.
Rock Island-Moline (Sta.)...	6.00 w.	.62 ¹ h.	3.00 d.	17.25 w.	8.00 w.
Springfield (Sta.).....	30.00-50.00 m.	.25-.50 h.	.20-.50 h.	.20-.30 h.	.15 h.
Indiana:					
Evansville (Sta.).....	5.00 w.		1.85 d.		
Indianapolis (Fed.).....	6.00 w.		.30 h.		
Indianapolis (Sta.).....	8.00-10.00 w.		2.75 d.		
South Bend (Sta.).....	5.00 w.		.30 h.		
Terre Haute (Sta.).....			.22 ¹ -.30 h.		
Iowa:					
Des Moines (Fed.-Sta.)...			.24-.26 h.		
Kentucky:					
Louisville (Sta.).....	5.00 w.		.30 h.		
Louisville (Mun.-Pri.).....			.25 h.		6.00 w.
Louisiana:					
New Orleans (Fed.).....	² 15.00 m.	7.25 d.	² 1.60 d.	10.00 w.	12.00 w.
Maryland:					
Baltimore (Fed.).....	5.00 w.	.60 h.	.23-.35 h.		
Massachusetts:					
Springfield (Sta.).....	4.00-7.00 w.	.50-.55 h.	.30-.35 h.		
Michigan:					
Battle Creek (Sta.).....	4.00-6.00 w.	.45 h.	.25-.30 h.	16.50-18.00 w.	6.00-12.00 w.
Bay City (Sta.).....	3.50-5.00 w.	.37 h.	.25-.30 h.		
Detroit (Sta.).....	8.00 w.	.35-.71 h.	.35 h.	12.00-18.00 w.	9.00-16.00 w.
Flint (Sta.).....	5.00 w.	.45 h.	.30 h.	3.00 d.	1.50 d.
Grand Rapids (Sta.).....	² 5.00 w.		.30 h.		
Jackson (Sta.).....	5.00-7.00 w.	50.00-55.00 m.	.35 h.	18.00-25.00 w.	9.00-12.00 w.
Kalamazoo (Sta.).....			.30 h.		7.00 w.
Lansing (Sta.).....			.40 h.		
Muskegon (Sta.).....			.30 h.		
Saginaw (Sta.).....			2.75 d.		
Minnesota:					
Minneapolis (Fed.).....	5.00-9.00 w.	.62 ¹ h.	2.50 d.	15.00-18.00 w.	7.00 w.
St. Paul (Sta.).....	2.00 d.		.30 h.	.25 h.	.25 h.

¹ And board.

² And found.

MONTHLY REVIEW OF THE BUREAU OF LABOR STATISTICS. 123

EMPLOYMENT OFFICES IN THE UNITED STATES, JANUARY, 1918—Continued.

Machinists.	Molders.	Painters.	Plasterers.	Plumbers.	Saleswomen.
\$4.00 d.	\$4.50 d.	\$0.50 h.		\$3.50 d.	
.55 h.		4.25 d.			\$10.00 w.
.60 h.				.75 h.	
5.00 d.	5.00 d.	5.00 d.		6.50 d.	10.00 w.
.50 h.	.50 h.	4.00-5.00 d.	\$4.50 d.	5.00 d.	8.00-14.00 w.
5.80 d.		3.50 d.	5.00 d.	4.00 d.	
.50 h.	.50 h.				8.00-10.00 w.
5.80 d.	5.28 d.				10.00 w.
.50 h.					
.62½ h.			7.00 d.	.85 h.	8.00 w.
.50 h.					
.60 h.					
.60 h.		.50 h.			
4.50 d.				4.50 d.	
.62 h.		.50 h.		.50 h.	
.62½ h.					
4.25 d.	5.00 d.	4.00 d.	4.00 d.	5.00 d.	12.00 w.
5.28 d.	5.28 d.	5.04 d.	6.00 d.	5.28 d.	40.00 m.
.50-.72 h.					8.00-12.00 w.
.35-.60 h.		4.00 d.	.50 h.	.45-.50 h.	7.00-10.00 w.
.51 h.	.58 h.	.60 h.	.87½ h.	.87½ h.	8.00 w.
.40 h.	5.00 d.				
.35-.45 h.	.35-.40 h.	.55 h.	.62½ h.	.75 h.	8.00 w.
4.00 d.	4.00 d.	.55 h.	.75 h.	5.45 d.	9.00 w.
.30-.65 h.	.40-.55 h.	.50 h.	.65 h.	.90 h.	8.00 w.
.52 h.					7.00 w.
.40 h.		.35 h.		.40-.50 h.	
.60 h.				.55 h.	
.50 h.					
.50 h.					6.00 w.
.62½ h.	.56½ h.	.65 h.	.62½ h.	.75 h.	5.00 w.
.55 h.					8.00 w.
.55-.60 h.		.50 h.		.65 h.	8.00 w.
.35-.40 h.	4.00 d.				4.00-10.00 w.
.60 h.					12.00 w.
.45 h.	4.75 d.	4.00 d.	6.00 d.	.60 h.	10.00 w.
.45 h.	.60 h.	.55 h.	.55 h.	.65 h.	7.00 w.
.45 h.	.40 h.				6.00-12.00 w.
.40-.50 h.	4.50 h.	.40-.45 h.	.50-.60 h.	.60 h.	
3.00-4.00 d.	3.00-4.00 d.	.55 h.	.75 h.	.52 h.	8.00 w.
.62½ h.		.55 h.	.70 h.	.62 h.	

^a And board and room.

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RATES OF WAGES PAID TO WORKERS PLACED IN EMPLOYMENT BY

State, city, and kind of office.	Seamstresses.	Sewing machine operators, male.	Sewing machine operators, female.	Stenographers, male.	Stenographers, female.
Alabama:					
Mobile (Fed.).....					
Arizona:					
Phoenix (Fed.-Sta.-Co.-Mun.).....	\$1.75 d.			\$100.00 m.	\$80.00 m.
Arkansas:					
Little Rock (Fed.).....				125.00 m.	
California:					
Eureka (Fed.).....					
Fresno (Fed.).....					
Los Angeles (Fed.).....	1.00 d.			85.00 m.	60.00 m.
Los Angeles (Sta.-Mun.).....	8.00 w.			75.00-90.00 m.	50.00-100.00 m.
Sacramento (Fed.).....					
San Diego (Fed.).....	2.00 d.				12.00 w.
San Francisco (Fed.).....	2.00 d.			85.00 m.	65.00 m.
Santa Barbara (Fed.).....					
Colorado:					
Colorado Springs (Sta.)..	1.00 d.				
Denver (Fed.).....					
Denver No. 1 (Sta.).....					
Denver No. 2 (Sta.).....					
Pueblo (Sta.).....	2.00 d.				
Connecticut:					
Bridgeport (Fed.-Sta.)...					
Bridgeport (Sta.).....					
Hartford (Sta.).....					
New Haven (Sta.).....					
Norwich (Sta.).....					
Waterbury (Sta.).....					
Delaware:					
Wilmington (Fed.-Mun.)...					
District of Columbia:					
Washington (Fed.).....				1,100.00 y.	
Florida:					
Jacksonville (Fed.).....					
Miami (Fed.).....					
Georgia:					
Savannah (Fed.).....	8.00 w.	\$12.00 w.	\$10.00 w.	60.00 m.	50.00 m.
Idaho:					
Boise (Mun.).....					
Moscow (Fed.).....	5.00 w.		5.00 w.	90.00 m.	65.00 m.
Illinois:					
Chicago (Fed.).....	7.00-9.00 w.			18.00 w.	12.00-20.00 w.
Chicago (Sta.).....	7.00-9.00 w.		12.00-18.00 w.	75.00-100.00 m.	12.00-18.00 w.
East St. Louis (Sta.).....	.20 h.	30.00 w.	.20 h.	90.00 m.	75.00 m.
Peoria (Sta.).....					
Rockford (Sta.).....	2.00 d.				35.00-45.00 m.
Rock Island-Moline (Sta.)	2.00 d.	80.00 m.	1.50 d.	80.00 m.	60.00 m.
Springfield (Sta.).....	2.00 d.	.30-.40 h.		50.00-90.00 m.	40.00-60.00 m.
Indiana:					
Evansville (Sta.).....					
Indianapolis (Fed.).....					15.00 w.
Indianapolis (Sta.).....					
South Bend (Sta.).....					
Terre Haute (Sta.).....					
Iowa:					
Des Moines (Fed.-Sta.)...					
Kentucky:					
Louisville (Sta.).....					
Louisville (Mun.-Pri.)....			6.00 w.		9.00 w.
Louisiana:					
New Orleans (Fed.).....	1.00 d.	2.50 d.	1.75 d.	75.00 m.	60.00 m.
Maryland:					
Baltimore (Fed.).....			10.00 w.	60.00-125.00 m.	15.00 w.
Massachusetts:					
Springfield (Sta.).....	\$1.25 d.			20.00 w.	
Michigan:					
Battle Creek (Sta.).....				75.00 m.	10.00-15.00 w.
Bay City (Sta.).....					
Detroit (Sta.).....			15.00 w.		
Flint (Sta.).....	.25 h.	3.00 d.	1.50 d.	80.00 m.	60.00 m.
Grand Rapids (Sta.).....					10.00 w.
Jackson (Sta.).....	8.00-15.00 w.		8.00-15.00 w.	8.00-20.00 w.	8.00-20.00 w.
Kalamazoo (Sta.).....					
Lansing (Sta.).....					
Muskegon (Sta.).....					
Saginaw (Sta.).....					

¹ And board.² And found.

EMPLOYMENT OFFICES IN THE UNITED STATES, JANUARY, 1918—Continued.

Structural- iron workers.	Telephone operators (switchboard), female.	Waiters.	Waitresses.	Casual workers, male.	Casual workers, female.
				\$1.25 d.	
		\$15.00 w. 65.00 m.	\$10.00 w.	¹ 2.00 d.	¹ \$1.75 d.
\$6.00 d. 5.50 d.	\$10.00 w. 10.00 w.	15.00 w. 10.00-15.00 w.	10.00 w. 8.00 w.	.30 h. 10.00-12.00 w. .30 h.	.30 h. 10.00 w. .25 h.
	50.00 m.	9.00-12.00 w. ² 40.00 m.	8.00-10.00 w. 10.00 w.	.30 h. .35 h. 2.25 d.	.25-.30 h.
			.25 h.	.35 h. 2.50 d.	.25 h. .25 h.
		40.00 m. ¹ 10.00 w.	35.00 m. ¹ 9.00 w. 8.00 w.	2.50 d. .30 h. .35 h.	2.00 d. .30 h. .25 h.
			10.00 w. 10.00 w.	.30 h. .35 h.	.25 h. .25 h.
		¹ 7.00 w.	30.00 m.	.35 h. .35 h. 3.50 d. 2.50 d.	.25 h. .25 h. 1.75 d. 2.00 d.
				.35-.42½ h.	.....
		40.00 m.		.30 h.	.....
6.00 d.	12.00 w.	6.00 w.	5.00 w.	1.50 d.	1.00 d.
	10.00 w.	15.00 w.	10.00 w. ¹ 35.00 m.	.35 h. 3.00 d.	.35 h. 1.50 d.
.60-.75 h. .60-.75 h. .70 h.	10.00-12.00 w. 10.00 w.	8.00-10.00 w. 18.00 w. 9.00 w. 12.00 w.	³ 27.50 m. 9.00-10.00 w. 8.00 w. 7.00 w.	.35-1.00 h. .30 h.	2.10-2.65 d. .25 h. .15 h.
.62 h.	7.00 w. 30.00 m.	10.00 w. 8.00-20.00 w.	1.00-1.50 d. 9.00 w. 6.00 w.	.35-.40 h. 3.00 d.	.20-.25 h. .25 h.
.60-.75 h.		7.00 w. ³ 8.00 w.	7.00 w.	.30 h.	1.50 d. 1.50 d.
				.25 h.	.....
		¹ 5.00 w.		2.00 d.	1.10 d.
.56½ h.	6.00 w.	1.00 d.	1.00 d.	1.00 d.	1.00 d.
	30.00 m.	75.00 m.	30.00 m.		1.00 d.
.47-.60 h.			¹ 5.00 w. 6.00 w.	.30 h. .30 h.	⁵ .20 h.
.65 h. .60 h.	12.00-15.00 w. 9.00 w.	¹ 10.00 w. 10.00 w.	¹ 8.00 w. 7.00 w.	.25-.30 h. .35 h. .35 h.	.25 h. .25 h.
6.00-7.00 d.	8.00-10.00 w.	9.00 w.	7.00-8.00 w. 5.00 w.	.35 h. .25-.35 h.	.25 h. .25 h.
			8.00 w.	.30 h.	.....

³ And board and room.⁴ And dinner.⁵ And car fare.

RATES OF WAGES PAID TO WORKERS PLACED IN EMPLOYMENT BY

State, city, and kind of office.	Blacksmiths.	Boilermakers.	Bricklayers.	Carpenters.	Cleaners and scrubbers, female.
Mississippi:					
Gulfport (Fed.).....			\$0.62½ h.	\$0.50 h.	
Missouri:					
Kansas City (Fed.-Sta.)..	\$5.00 d.	\$0.76½ h.	.75 d.	.65 h.	\$0.25 h.
St. Joseph (Sta.).....	4.00 d.			.60 h.	
St. Louis (Fed.-Sta.).....	4.60 d.	4.75 d.		.62½ h.	1.60 d.
Montana:					
Butte (Sta.).....					.35 h.
Nebraska:					
Lincoln (Fed.-Sta.).....					
Omaha (Fed.-Sta.-Co.-Mun.).....				.62½ h.	.25 h.
Nevada:					
Reno (Fed.).....					
New Jersey:					
Newark (Fed.-Sta.-Mun.)..	.30-.35 h.		.65-.70 h.	.45-.62½ h.	1.85 d.
New Mexico:					
Deming (Fed.).....				.75 h.	
New York:					
Buffalo (Fed.).....					
New York (Fed.).....	4.50-6.00 d.	.56 h.		³ 4.50-6.00 d.	2.00 d.
New York (Mun.).....	5.50 d.	5.00 d.	6.00 d.	5.50 d.	8.00-10.00 w.
Ohio:					
Akron (Sta.-Mun.).....	.60 h.	.65 h.	.70 h.	.65 h.	2.25 d.
Canton (Sta.).....	.40 h.	.50 h.	.75 h.	.40-.60 h.	2.00 d.
Chillicothe (Sta.-Mun.)..	.50 h.	.50 h.		.60 h.	1.50 d.
Cincinnati (Sta.-Mun.)...	.42½ h.	.42½ h.	.80 h.	.62½ h.	1.60 d.
Cleveland (Fed.).....	.50 h.	.62½ h.	.80 h.	.70 h.	2.00 d.
Cleveland (Sta.-Mun.)...	.45-.55 h.	.45-.50 h.	.60-.70 h.	.40-.70 h.	.25 h.
Columbus (Sta.-Mun.).....				.55 h.	1.75 d.
Dayton (Sta.-Mun.).....	.45 h.	.40 h.	.80 h.	.50 h.	1.50 d.
Hamilton (Sta.-Mun.).....	3.25 d.				1.10 d.
Lima (Sta.).....	.50 h.	.44 h.	.80 h.	.40 h.	.20 h.
Mansfield (Sta.-Mun.)...	.40 h.		.70 h.	.50 h.	2.00 d.
Marietta (Sta.).....				.40-.50 h.	1.00 d.
Marion (Sta.-Mun.).....	.30 h.	.40 h.		.50 h.	.15-.20 h.
Portsmouth (Sta.-Mun.)...	.56 h.	.56 h.		.50-.56½ h.	1.50 d.
Sandusky (Sta.-Co.-Mun.)	4.00 d.	4.50 d.	.70 h.	.50 h.	1.50 d.
Springfield (Sta.-Mun.)..	.45 h.	.45 h.	.60 h.	.55 h.	1.50 d.
Steubenville (Sta.-Mun.)..	.40 h.	.42½ h.	.75 h.	.65 h.	2.00 d.
Tiffin (Sta.-Mun.).....	4.00 d.		.70 h.	.60 h.	1.00 d.
Toledo (Sta.-Mun.).....	.50 h.	.50 h.	.70 h.	.55 h.	.25 h.
Washington C. H. (Sta.)...				.30 h.	1.25 d.
Youngstown (Sta.-Mun.)...	.45 h.	.50 h.	.75 h.	.62½ h.	2.10 d.
Zanesville (Sta.-Mun.)...	.37½-.40 h.	.42 h.	.70 h.	.52½ h.	1.50 d.
Oklahoma:					
Oklahoma City (Sta.)....	3.50 d.			.35 h.	.20 h.
Oregon:					
Portland (Fed.-Mun.)....	5.25 d.	5.25 d.	7.00 d.	5.60-6.00 d.	.30 h.
Pennsylvania:					
Philadelphia (Fed.).....	.40-.45 h.	.36-.44 h.	.70 h.	.60 h.	6.00-8.00 w.
Pittsburgh (Fed.).....	.58 h.	.55 h.	.65 h.	.60 h.	.22 h.
Rhode Island:					
Providence (Fed.).....	.47-.60 h.	.47-.60 h.		.43½-.55 h.	
Providence (Sta.).....		.47-.60 h.		.35-.45 h.	.20-.25 h.
South Carolina:					
Charleston (Fed.).....				3.50 d.	
Tennessee:					
Memphis (Fed.).....				.45-.60 h.	
Texas:					
Dallas (Mun.).....	4.50 d.	5.00 d.	8.00 d.	5.00 d.	2.00 d.
Del Rio (Fed.).....		.45 h.	7.00 d.	4.00 d.	1.00 d.
Fort Worth (Fed.).....	.52 h.	.56 h.	.75 h.	.76 h.	.25 h.
Galveston (Fed.).....				.62½ h.	
Houston (Fed.).....	.53 h.	.75 h.	1.00 h.	.62½ h.	25.00-50.00 m.
Houston (Mun.).....				.62½ h.	1.00 d.
Utah:					
Salt Lake City (Fed.)....	4.75-6.00 d.	4.50-6.00 d.	6.00 d.	4.50-6.00 d.	1.25-2.00 d.
Washington:					
Bellingham (Fed.-Mun.)...				4.25 d.	.25 h.
Everett (Mun.).....	5.00 d.		7.00 d.	5.50 d.	1.50 d.
Seattle (Fed.).....	5.77 d.	5.77 d.	6.00 d.	5.60 d.	
Seattle (Mun.).....	5.00-6.00 d.		.50-.75 h.	4.00-6.50 d.	.30 h.
Spokane (Fed.).....	5.00 d.	4.75 d.	6.50 d.	5.00 d.	.35 h.
Spokane (Mun.).....	.45 h.	.60 h.	6.00 d.	5.50 d.	.30 h.
Walla Walla (Fed.).....	3.00 d.			5.00 d.	
Yakima (Fed.).....					.30 h.
Wyoming:					
Cheyenne (Fed.-Sta.)....					

¹ And house and garden.² And board.³ Ship carpenters.⁴ And board and room.⁵ And maintenance.

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EMPLOYMENT OFFICES IN THE UNITED STATES, JANUARY, 1918—Continued.

Cooks, male.	Cooks, female.	Drivers, teamsters, etc.	Dock laborers.	Farm hands.	Hod carriers.
\$21.00 w. 16.00 w. 60.00 m. 21.00 w.	\$12.00-14.00 w. 7.00 w. 30.00 m. 17.50 w.	\$18.00 w. 14.00 w. 13.50 w.	\$0.25 h.	\$35.00 m. 40.00 m. 40.00 m.	\$0.45 h.
75.00 m.	12.00 w.	3.00 d.		50.00 m. 40.00 m. 2 1.50 d.	
15.00-20.00 w. 60.00 m.	30.00-35.00 m.	12.00-18.00 w.		15.00-50.00 m.	
75.00 m.	⁴ 40.00 m. 40.00 m.	20.00 w.	.33 h. .60 h.	15.00-20.00 m. ⁴ 35.00 m. 40.00 m.	3.75 d.
20.00 w. 15.00 w. 20.00 w. 80.00 m. 25.00-30.00 w. ² 16.00 w.	40.00 m. 8.00 w. 10.00 w. 50.00 m. 18.00-20.00 w. 9.00 w. 4.50-6.00 w. 5.00 w. 12.00 w. 10.00 w.	3.50 d. 18.00 w. .30 h. 2.50 d. 18.00 w. 18.00-20.00 w. 2.50 d. 3.00 d. 15.00 w. 55.00 m. .30 h. .25 h. 27½ h.	.30 h. .27 h. .35 h. .35-.40 h.	35.00 m. 30.00-40.00 m. 35.00 m. ⁶ 35.00 m. 30.00 m. ⁴ 35.00 m. 35.00 m. 30.00 m. 30.00-35.00 m. 35.00 m.	.50 h. .40 h. .60 h. .45 h. .40-.50 h.
90.00 m. 75.00 m. 12.00 w.	20.00 m. 6.00 w. 8.00 w. 7.00 w. 9.00 w.	2.50 d. 18.00 w. 3.00 d. 2.50 d. 17.00 w.	.27½ h. .35 h.	⁶ 25.00-45.00 m. ⁶ 30.00 m. 40.00 m. 30.00-40.00 m. 35.00 m. 35.00 m. 35.00 m. 1.25 d. 40.00 m.	3.50 d. 3.50 d. 3.50 d. 4.50 d.
50.00-75.00 m. 20.00 w. 75.00 m. 15.00 w. ⁴ 15.00 w. 15.00 w. 90.00 m. 25.00 w.	40.00 m. 10.00 w. 70.00 m. 10.00 w.	2.50 d. 3.50 d. 2.75 d.		25.00 m.	
75.00-100.00 m. 90.00 m. 20.00 w.	40.00-80.00 m. 8.00-15.00 w. 12.00 w.	2.75-3.50 d. 55.00-60.00 m. 3.50 d.	.60-1.00 h. .35 h.	40.00-60.00 m. 40.00 m.	4.50 d. 35.00 m.
10.00-14.00 w.	7.00-12.00 w.	9.00-13.00 w.	.40 h.	30-.60 h. 25.00-35.00 m.	
90.00 m. 25.00 w. 25.00 w.	10.00 w. 25.00 m. 10.00 w.	12.00 w. 1.25 d. 3.50 d.	2.50 d.	45.00 m. 1.25 d. ² 30.00-45.00 m. 25.00 m.	2.50 d.
45.00-275.00 m. 60.00 m.	40.00-100.00 m. 20.00 m.	2.00-3.00 d. 2.00 d.	.25-.50 h. .35 h.	15.00-35.00 m. 25.00 m.	3.00 d.
40.00-125.00 m.	35.00-75.00 m.	3.00-4.00 d.		40.00-75.00 m.	4.50-5.00 d.
75.00-100.00 m.	50.00 m. 40.00-65.00 m. 40.00 m.	3.75 d. ² 45.00 m.	.50 h.	40.00-55.00 m. 35.00-60.00 m. ² 50.00 m.	4.50 d.
75.00-125.00 m. 80.00 m. 90.00 m. 60.00 m. ² 60.00 m.	35.00-75.00 m. 40.00 m. 60.00 m. 7.00 w. ² 30.00 m.	3.25-3.75 d. 75.00 m. 75.00 m. 3.30 d.	.45-.50 h.	35.00-70.00 m. 50.00 m. 50.00 m. 50.00 m.	.45 h. 4.50 d.
		21.00 w.		² 35.00-50.00 m.	

⁶ And board and room for single men; and house, garden, etc., for married men.

⁷ And board, lodging, and washing.

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RATES OF WAGES PAID TO WORKERS PLACED IN EMPLOYMENT BY

State, city, and kind of office.	House servants.	Inside wiremen.	Laborers.	Laundry operatives, male.	Laundry operatives, female.
Mississippi:					
Gulfport (Fed.).....		\$4.00-6.00 d.	\$0.25 h.		
Missouri:					
Kansas City (Fed.-Sta.)..	\$5.00-7.00 w.	.75 h.	.42½ h.	\$20.00 w.	\$5.00-9.00 w.
St. Joseph (Sta.).....	5.00-7.00 w.		.25-.35 h.		1.00 d.
St. Louis (Fed.-Sta.)....	1 40.00 m.		.22 h.		1.60 d.
Montana:					
Butte (Sta.).....	30.00-35.00 m.		4.25 d.		
Nebraska:					
Lincoln (Fed.-Sta.).....			.25 h.		
Omaha (Fed.-Sta.-Co. Mun.)..	6.00 w.		.30 h.		
Nevada:					
Reno (Fed.).....	20.00 m.		3.10 d.		
New Jersey:					
Newark (Fed.-Sta.-Mun.)..	25.00-35.00 m.	.50 h.	.25-.40 h.		
New Mexico:					
Deming (Fed.).....			50.00-60.00 m.		
New York:					
Buffalo (Fed.).....			.30-.40 h.		
New York (Fed.).....	2 30.00 m.		.37½ h.		2 22.00 m.
New York (Mun.).....	35.00 m.	5.00 d.	.40 h.		2.00 d.
Ohio:					
Akron (Sta., Mun.).....	7.00 w.	.60 h.	.35 h.	18.00 w.	8.00 w.
Athens (Sta.).....			.35 h.		
Canton (Sta.).....	6.00 w.	.40 h.	.32½ h.	18.00 w.	8.00 w.
Chillicothe (Sta.-Mun.)..	6.00 w.	.62½ h.	.35 h.	14.00 w.	8.00 w.
Cincinnati (Sta.-Mun.)..	2 40.00 m.	.40 h.	.25-.30 h.	15.00 w.	10.00 w.
Cleveland (Fed.).....	7.00-8.00 w.	.78½ h.	.35 h.		
Cleveland (Sta.-Mun.)..	7.00-8.00 w.	100.00 m.	.30-.40 h.	15.00-18.00 w.	
Columbus (Sta.-Mun.)..	6.00 w.		.30 h.		
Dayton (Sta.-Mun.).....	4.50-9.00 w.	.35 h.	.30-.40 h.		
Hamilton (Sta.-Mun.)..	4.50 w.		.30 h.		
Lima (Sta.).....	9.00 w.	.40 h.	.27½ h.	.25 h.	.20 h.
Mansfield (Sta.-Mun.)..	5.00 w.	.34 h.	.35 h.	15.00 w.	8.00 w.
Marietta (Sta.).....	3.50-5.00 w.		.25 h.		1.00-1.50 d.
Marion (Sta.-Mun.).....	3.00-4.00 w.	.50 h.	.27½-.35 h.		
Portsmouth (Sta.-Mun.)..	6.00 w.		.30 h.		6.00 w.
Sandusky (Sta.-Co.-Mun.)..	5.00 w.	.50 h.	.30 h.		7.00 w.
Springfield (Sta.-Mun.)..	5.00-12.00 w.	.45 h.	.30 h.	15.00 w.	6.00 w.
Steubenville (Sta.-Mun.)..	7.00 w.	.62½ h.	3.00 d.		1.00 d.
Tiffin (Sta.-Mun.).....	6.00 w.	125.00 m.	2.50 d.		
Toledo (Sta.-Mun.).....	8.00 w.	.60 h.	.30 h.	15.00 w.	8.00 w.
Washington C. H. (Sta.)..	6.00 w.		.25 h.	7.00 w.	5.00 w.
Youngstown (Sta.-Mun.)..	7.00 w.	.68 h.	.35 h.	80.00 m.	9.00 w.
Zanesville (Sta.-Mun.)..	5.00 w.	3.25 d.	2.50-2.75 d.	17.50 w.	10.25 w.
Oklahoma:					
Oklahoma City (Sta.)....	4.00 w.		.25 h.		8.00 w.
Oregon:					
Astoria (Fed.).....			3.50 d.		
Portland (Fed.-Mun.)....	30.00-40.00 m.	4.50 d.	.35 h.	15.00-21.00 w.	8.64-12.00 w.
Pennsylvania:					
Philadelphia (Fed.).....	6.00-10.00 w.	.45 h.	.32-.35 h.		6.00-12.00 w.
Pittsburgh (Fed.).....	7.00 w.	.45 h.	.34 h.	15.00 w.	8.00 w.
Rhode Island:					
Providence (Fed.).....			.40 h.		8.00 w.
Providence (Sta.).....			.28-.35 h.		
South Carolina:					
Charleston (Fed.).....			1.75 d.		
Tennessee:					
Memphis (Fed.).....		.45-.60 h.	.25-.30 h.		
Texas:					
Dallas (Mun.).....	6.00 w.		2.25 d.		
Del Rio (Fed.).....	2.50 w.		20.00 m.	.22½ h.	.17½ h.
El Paso (Fed.).....	5.00 w.				
Fort Worth (Fed.).....	5.00 w.	.75 h.	.20-.35 h.	15.00 w.	10.00 w.
Galveston (Fed.).....				30.00 m.	
Houston (Fed.).....	3.00-8.00 w.	6.00 d.	.30 h.	10.00-35.00 w.	7.00-15.00 w.
Houston (Mun.).....	20.00 m.		2.00 d.		6.50 w.
Laredo (Fed.).....					
Utah:					
Salt Lake City (Fed.)....	5.00-10.00 w.	5.60 d.	2.90-3.50 d.	16.00-25.00 w.	1.25-2.50 d.
Washington:					
Bellingham (Fed.-Mun.)..	4.00-6.00 w.		3.00-3.50 d.		
Everett (Mun.).....	20.00-30.00 m.		3.75 d.	90.00-100.00 m.	40.00-50.00 m.
Seattle (Fed.).....	1 35.00 m.		3.50 d.		
Seattle (Mun.).....	15.00-50.00 m.	.65 h.	3.50 d.	15.00-21.00 w.	2.00 d.
Spokane (Fed.).....	30.00 m.	6.50 d.	3.50 d.	21.00 w.	13.00 w.
Spokane (Mun.).....	6.00 w.		3.50 d.		
Walla Walla (Fed.).....	6.00 w.		3.50 d.		
Yakima (Fed.).....	2 6.00 w.		3.00 d.		
Wyoming:					
Cheyenne (Fed.-Sta.)....	40.00 m.		3.00 d.		

¹ And board.

EMPLOYMENT OFFICES IN THE UNITED STATES, JANUARY, 1918—Continued.

Machinists.	Molders.	Painters.	Plasterers.	Plumbers.	Saleswomen.
		\$0.40 h.			
\$0.55 h.	\$0.50 h.	.60 h.	\$7.00 d.	\$6.00 d.	\$6.00 w.
.80 h.				.85 h.	
4.60 d.					
.55 h.		.62½ h.		.75 h.	
.40-.70 h.		4.50 d.		.50-.75 h.	
		90.00 m.			
.45-.58 h.					10.00 w.
6.00 d.	5.00 d.	5.00 d.	6.00 d.	6.00 d.	12.00 w.
.65 h.	.60 h.	.50 h.	.60 h.	.65 h.	9.00 w.
.50 h.	.50 h.	.50 h.	.60 h.	.60 h.	8.00 w.
.50 h.					10.00 w.
.40 h.	.55 h.	.40 h.	.65 h.	28.60 w.	6.00-10.00 w.
.50-.70 h.	5.50 d.	.60 h.	.75 h.	.81½ h.	12.00-14.00 w.
.40-.60 h.	.45-.50 h.	.40-.55 h.	.50-.60 h.	.75-1.00 h.	9.00-12.00 w.
.50 h.					9.00 w.
.60 h.	.40 h.	.45 h.	.80 h.	.35-.80 h.	10.00 w.
.44½ h.	4.50 d.				
.43 h.	.45 h.	.30 h.	.40 h.	.55 h.	8.50 w.
.40 h.	.40 h.			.45 h.	9.00 w.
.40-.45 h.	.45 h.	.35 h.			8.00 w.
.45 h.	.40 h.			.57½ h.	
.35-.47½ h.	4.00-5.00 d.		5.50 d.		5.00-7.00 w.
.45 h.	.45 h.	.45 h.	.50 h.	4.25 d.	2.10 w.
.57½ h.	.45 h.			.62½ h.	8.00 w.
.45 h.	.40 h.	.60 h.		.70 h.	
.50 h.	.40 h.	.50 h.	.70 h.	.60 h.	6.00 w.
				3.00 d.	8.00 w.
.60 h.	5.50 d.	.60 h.	.68 h.	.65 h.	10.00 w.
.45-.50 h.	.45-.50 h.	.47½ h.	.62½ h.	.53 h.	12.00 w.
5.25 d.	5.25 d.	4.50 d.	7.00 d.	6.50 d.	8.64-15.00 w.
.45 h.		3.00-5.00 d.		4.00 d.	8.00 w.
.55 h.	5.00 d.	.45 h.		.75 h.	10.00 w.
.47-.60 h.					
.47-.60 h.					
				.60 h.	
6.00 d.		4.80 d.	8.00 d.	6.50 d.	
.45 h.		4.00 d.	7.00 d.	7.00 d.	45.00-65.00 m.
					6.00 w.
.52 h.	.60 h.	.75 h.		.81 h.	10.00 w.
.55 h.	.30-.50 h.	.60 h.	.87½ h.	.87½ h.	6.00-15.00 w.
5.00-6.00 d.	6.00 d.	5.50-6.00 d.	7.00 d.	6.50 d.	.90-1.75 d.
					9.00 w.
		5.00 d.	6.50 d.	7.00 d.	9.00-15.00 w.
5.77 d.	5.77 d.	5.00 d.		5.25 d.	
.50-.75 h.		.50-.62½ h.	.50-.60 h.	6.50 d.	10.00 w.
5.00 d.	5.00 d.	5.50 d.	6.00 d.	6.00 d.	12.00 w.
.50 h.	6.00 d.	6.00 d.	6.00 d.	.75 h.	

* And board and room.

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RATES OF WAGES PAID TO WORKERS PLACED IN EMPLOYMENT BY

State, city, and kind of office.	Seamstresses.	Sewing machine operators, male.	Sewing machine operators, female.	Stenographers, male.	Stenographers, female.
Minnesota:					
Minneapolis (Fed.).....	\$8.00-40.00 w.	\$18.00-35.00 w.	\$12.00 w.	\$18.00-21.00 w.	\$40.00-75.00 m.
St. Paul (Sta.).....					
Mississippi:					
Gulfport (Fed.).....					
Missouri:					
Kansas City (Fed.-Sta.)..	2.50 d.			20.00 w.	15.00 w.
St. Joseph (Sta.).....			.85 h.		12.00 w.
St. Louis (Fed.-Sta.).....	2.00 d.		2.25 d.		
Montana:					
Butte (Sta.).....					
Nebraska:					
Lincoln (Fed.-Sta.).....					
Omaha (Fed.-Sta.-Co.-Mun.).....				75.00 m.	15.00 w.
Nevada:					
Reno (Fed.).....					
New Jersey:					
Newark (Fed.-Sta.-Mun.)..				18.00-24.00 w.	10.00-15.00 w.
New Mexico:					
Deming (Fed.).....				100.00 m.	
New York:					
Buffalo (Fed.).....					15.00 w.
New York (Fed.).....	2.50 d.				18.00 w.
New York (Mun.).....	2.50 d.			25.00 w.	
Ohio:					
Akron (Sta.-Mun.).....	2.00 d.		2.00 d.	80.00 m.	70.00 m.
Athens (Sta.).....					
Canton (Sta.).....	8.00 w.		8.00 w.	15.00-25.00 w.	12.00-18.00 w.
Chillicothe (Sta.-Mun.)...	1.25 d.		8.00 w.	80.00 m.	60.00 m.
Cincinnati (Sta.-Mun.)...	7.00 w.	18.00 w.	13.00 w.	18.00 w.	10.00 w.
Cleveland (Fed.).....	2.50 d.		9.00-12.00 w.	90.00 m.	80.00 m.
Cleveland (Sta.-Mun.)...	10.00-12.00 w.		8.00 w.	75.00-120.00 m.	50.00-100.00 m.
Columbus (Sta.-Mun.)...	2.00 d.		9.00 w.		65.00 m.
Dayton (Sta.-Mun.).....	1.50 d.			20.00 w.	16.00 w.
Hamilton (Sta.-Mun.).....					9.00 w.
Lima (Sta.).....	1.50-4.50 d.			75.00 m.	50.00 m.
Mansfield (Sta.-Mun.)...				100.00 m.	60.00 m.
Marietta (Sta.).....					
Marion (Sta.-Mun.).....				75.00 m.	35.00 m.
Portsmouth (Sta.-Mun.)...				65.00 m.	10.00 w.
Sandusky (Sta.-Co.-Mun.)...				65.00-100.00 m.	8.00-14.00 w.
Springfield (Sta.-Mun.)...	6.00 w.			80.00 m.	10.00 w.
Steubenville (Sta.-Mun.)...				50.00 m.	60.00 m.
Tiffin (Sta.-Mun.).....	9.00 w.		1.25 d.		15.00 w.
Toledo (Sta.-Mun.).....	.20 h.		10.00 w.	100.00 m.	10.00 w.
Washington C. H. (Sta.)...			1.00 d.	12.00 w.	9.00 w.
Youngstown (Sta.-Mun.)...	2.50 d.			100.00 m.	75.00 m.
Zanesville (Sta.-Mun.)...	10.00 w.	20.00-25.00 w.	8.00-10.00 w.	15.00-18.00 w.	10.00-12.00 w.
Oklahoma:					
Oklahoma City (Sta.)...				75.00 m.	15.00 w.
Oregon:					
Astoria (Fed.).....					
Portland (Fed.-Mun.).....	2.00 d.		8.64-12.00 w.	80.00-125.00 m.	60.00-100.00 m.
Pennsylvania:					
Philadelphia (Fed.).....	1.50-3.00 d.		1.50-3.00 d.		12.00-18.00 w.
Pittsburgh (Fed.).....	1.50 d.			75.00 m.	60.00 m.
Rhode Island:					
Providence (Fed.).....				15.00 w.	
Providence (Sta.).....					
South Carolina:					
Charleston (Fed.).....			1.04 d.	13.00 w.	
Tennessee:					
Memphis (Fed.).....				125.00 m.	
Texas:					
Dallas (Mun.).....				75.00 m.	65.00 m.
Del Rio (Fed.).....				75.00 m.	60.00-75.00 m.
El Paso (Fed.).....					
Fort Worth (Fed.).....				125.00 m.	85.00 m.
Galveston (Fed.).....					
Houston (Fed.).....	1.00-3.00 d.		6.00-27.00 w.	60.00-150.00 m.	30.00-125.00 m.
Houston (Mun.).....	1.50 d.			100.00 m.	75.00 m.
Laredo (Fed.).....				1,000.00 y.	
Utah:					
Salt Lake City (Fed.).....	1.50-3.00 d.	20.00-25.00 w.	1.00-2.25 d.	45.00-125.00 m.	40.00-75.00 m.

¹ And board.

EMPLOYMENT OFFICES IN THE UNITED STATES, JANUARY, 1918—Continued.

Structural- iron workers.	Telephone operators (switchboard), female.	Waiters.	Waitresses.	Casual workers, male.	Casual workers, female.
\$0.45-.50 h. .62½h.	\$40.00-50.00 m.	\$15.00 w.	\$7.00-12.00 w. 18.00 w.	\$0.30-.35 h. .35 h.	\$0.30-.35 h. .25 h.
5.25 d.	10.00 w.	14.00 w. 1 2.00 d.	8.00 w. 1.10 d. 1.00 d.	.30 h. .30 h.	2.10 d. 7.50 w.
			14.00 w.		
	30.00 m.		8.00 w.	.30 h.	
5.00 d.	10.00-12.00 w.			.30 h.	2.00 d.
		60.00 m.			
6.00 d.	10.00 w. 15.00 w.	2 40.00 m.	2 32.00 m.	.30-.40 h. 3.00 d.	2.00 d. 2.00 d.
.60 h.	9.00 w.	15.00 w.	8.00 w.	.35 h.	.25 h.
.60 h.	8.00 w.	10.00-14.00 w. 14.00 w. 12.00 w.	8.00-10.00 w. 7.00 w. 6.00 w.	.35 h. .40 h. .30 h.	.25 h. 2.00 d.
.45 h.	45.00 m.	10.00-12.00 w.	7.00-8.00 w.	.30 h.	.17 h.
.80 h.	10.00 w.	10.00-15.00 w.	8.00-10.00 w.	2.50 d. .30 h.	2.00 d. .25 h.
.75 h.	40.00-60.00 m.		6.00 w. 8.00 w.	.30 h. .30 h.	1.75 d. .18 h.
.65 h.		2.00 d.		.25 h.	
.50 h.	.15-.19 h. 30.00 m.	1 14.00 w. 12.00 w.	1 5.00 w. 9.00 w.	.35 h. .25 h.	.25 h. 1.00 d.
		9.00 w.	5.00 w.	.30 h.	.20 h.
.75 h.	30.00 m.		5.00 w.	.30 h.	.20 h.
.35 h.	7.00 w. 7.00-10.00 w.	12.00 w. 7.00 w.	6.00 w. 7.00 w.	.30 h. .30 h.	1.50 d. 1.50 d.
.45 h.		14.00 w.	1.00 d. 7.00 w.	2.00 d. .30 h.	1.00 d. .25 h.
.60 h.	7.25 w. 10.00 w.	50.00 m.	8.00 w.	2.00 d. .35 h.	1.00 d. .25 h.
.42½h.	24.00-37.00 m.	1 16.00-18.00 w.	1 5.00-7.00 w.	.30 h.	1.50 d.
		8.00 w.	1.00 d.	.25 d.	.20 h.
5.00-6.00 d.	9.00-15.90 w.	13.00-18.00 w.	10.00-12.00 w.	.35 h.	.30 h.
.40-.45 h.		30.00-60.00 m. 15.00 w.	4.00-8.00 w. 10.00 w.	3.00 d.	1.60-2.00 d. 1.50 d.
.30-.60 h. .47-.75 h.		9.00 w.	7.00 w.	.25 h.	.20 h.
	1.50 d.				
.50 h.					
		12.00 w. 2.00 d.	10.00 w. 1.50 d.	2.25 d. 1.00 d.	1.75 d. .75 d. 1.00 d.
		1.50 d.	1.50 d.	2.75 d.	
.65 h.	20.00-45.00 m.	30.00-50.00 m. 12.00 w.	25.00-40.00 m. 7.00 w.	2.00-3.00 d. .25 h.	1.00-2.00 d. 1.00 d.
6.50 d.	24.00-60.00 m.	15.00 w.	30.00-40.00 m.	.30-.40 h.	.25-.30 h.

2 And board and room.

RATES OF WAGES PAID TO WORKERS PLACED IN EMPLOYMENT BY

State, city, and kind of office.	Seamstresses.	Sewing machine operators, male.	Sewing machine operators, female.	Stenographers, male.	Stenographers, female.
Washington:					
Bellingham (Fed.-Mun.)					
Everett (Mun.)	\$2.50 d.			\$50.00-90.00 m.	\$40.00-75.00 m.
Seattle (Fed.)				100.00 m.	85.00 m.
Seattle (Mun.)	2.00 d.			90.00 m.	
Spokane (Fed.)	13.00 w.	\$21.00 w.	\$13.00 w.	85.00 m.	60.00 m.
Spokane (Mun.)				75.00 m.	
Walla Walla (Fed.)					
Yakima (Fed.)					
Wyoming:					
Cheyenne (Fed.-Sta.)					80.00 m.

EMPLOYMENT OFFICES IN THE UNITED STATES, JANUARY, 1913—Concluded.

Structural- iron workers.	Telephone operators (switchboard), female.	Waiters.	Waitresses.	Casual workers, male.	Casual workers female.
			\$8.00-10.00 w. 10.00 w.	\$0.30-.35 h. .40 h. .40 h.	\$0.25-.30 h. .25 h. .25 h.
				.35-.50 h. .35 h.	.30 h. .35 h.
	\$13.00 w. 85.00 m.	\$15.00-18.00 w. 18.00 w. 20.00 w.	9.00-13.00 w. 13.00 w. 17.50 w. 10.00 w.	.35 h. .35 h. .35 h.	.30 h. .25 h. .30 h.
			12.00 w.		

WAGES AND THE WAR.¹

A very interesting and valuable study on wages and the War has recently appeared, the object of which is "to show the general trend in rates of compensation to the close of 1917." In order that the figures might be as authoritative as possible, the data were confined to those secured from official and other trustworthy sources, including records and reports of the various Federal and State departments, supplemented by trade and labor publications. A special effort was made to bring up to date the figures in the sources used, and to this end agents were sent to labor unions and industrial establishments and State and municipal agencies. In general the basic data have been brought up to the last month or quarter of 1917, and in some cases 1918 data have been obtained.

The following summarization is taken from the study:

THE EFFECT OF THE WAR ON WAGES.

During the past few years, and more particularly during the period of the War, there has been an increase in money wages in practically all branches of American industry. But there has been absolutely no uniformity in the degree of increase. In some trades there have been wage advances that a little while ago would have appeared wildly incredible. In others the advances have been very moderate, little, if any, greater than had occurred during a period of equal length in the preceding years of peace.

The great advances have taken place in those lines of industry for the products of which the War has created a special demand, such, for instance, as those of the iron and steel industry, the metal trades, coal mining, and shipbuilding. In some industries, such as printing, the War made no special demands; in still others, such as building, the War had a depressing effect. In these cases wage rates show no great upward movements, although almost everywhere there has been some advance.

Many individual workers in these trades, of course, profited by transferring themselves to shipbuilding, munitions making, and other distinctly war industries. With some crafts such a transfer is easy and profitable. Carpenters and steam fitters, for instance, can apply the skill they have developed in the building trades to almost identical work in shipbuilding. But this is not always the case. A printer or a glass blower, for instance, finds no particular demand for his special skill in the war industries. If he changes his job, it must usually be to some form of unskilled work where his craft knowledge is of little or no use. Thus, there would be no profit for him in changing to an unskilled labor status, even though the wage rates of such labor have advanced much more rapidly than the wage rates in his own trade.

It does not appear that the wage advances have been related to the matter of labor organization. The three industries in which perhaps the most notable advances have occurred are iron and steel, bituminous mining, and shipbuilding. The first of these—iron and steel—is almost wholly unorganized. The second—bituminous coal mining—is strongly unionized. The third—shipbuilding—is partly organized and partly unorganized.

¹ Wages and the War: A summary of recent wage movements, by Hugh S. Hanna and W. Jett Lauck. Cleveland, Doyle & Waltz Printing Co., 1918. 356 pp. Charts. Price, \$2.

In general, however, the trades and localities which were poorly organized have shown the greatest percentage of increase in wages. This is due simply to the fact that these trades and localities were, as a rule, previously upon a much lower level of wage compensation. Unorganized labor seems more responsive to the immediate demands of the moment than is organized labor. Its wages have tended to rise more rapidly in periods of business activity and to sink more rapidly in periods of business depression.

THE TREND OF WAGES IN DIFFERENT INDUSTRIES.

It is difficult to show in summary form the recent changes in wage rates that have occurred for all of the trades and occupations covered by this study. A very complete idea, however, of the changes which have taken place is offered in the accompanying tables. The first table shows the relative wages and earnings for a large number of typical occupations and industries in December, 1917 (or January, 1918), as compared with 1911-12, the earlier period being taken as 100. The second table shows the relatives for December, 1917 (or January, 1918), as compared with 1914-15. In each table the per cent of increase in 1917 over the earlier period can be readily seen by deducting 100 from the figures shown. Certain trades are included in the second table which could not be included in the first table because data were lacking for the 1911-12 period.

These tables bring out more clearly than could many pages of text the differing degrees of change which have occurred in the wages of different trades and occupations. All of the entries are for money rates of pay—per hour, day, or piece—except in the cases marked "earnings." Here the entries show changes in earnings, not rates, and earnings, of course, are not strictly comparable with wage rates, as the former are influenced by the amount of time worked.

TABLE 1.—RELATIVE WAGES IN LEADING OCCUPATIONS, DECEMBER, 1917, COMPARED WITH 1911-12.

[1911-12=100.]

	1917 compared with 1911-12.
Compositors and linotype operators (newspapers, day).....	111
Electrotypers (finishers).....	117
Hod carriers (plaster tending).....	117
Motormen and conductors (street railways).....	118
Steam fitters (building trades).....	119
Structural-iron workers (building trades).....	123
Plumbers and gasfitters (building trades).....	124
Mining (anthracite).....	124
Sheet-metal workers (building trades).....	129
Blacksmiths (railroad shops, southeastern).....	129
Inside wiremen (building trades).....	130
Machinists (navy yard, Philadelphia).....	131
Ship smiths (navy yard, Philadelphia).....	134
Machinists (railroad shops, southeastern).....	135
Boiler makers (railroad shops, southeastern).....	136
Ship fitters (navy yard, Philadelphia).....	140
Pick mining, bituminous (Hocking Valley district).....	142
Pipe fitters (navy yard, Philadelphia).....	144
Riveters, chippers, and calkers (shipyard, Washington, Oregon).....	144
Blacksmiths (shipyard, San Francisco).....	144
Machinists (shipyard, San Francisco).....	144
Electricians (shipyard, San Francisco).....	144
Shipwrights, joiners, boatmen, millmen (shipyard, San Francisco).....	147
Longshoremen (New York).....	152
Sheet-metal workers (shipyard, San Francisco).....	165
Machine mining, bituminous (Hocking Valley district).....	166
Blast furnace (iron and steel).....	177
Common labor (iron and steel).....	180
Inside labor (most occupations), bituminous (Hocking Valley).....	185
Open hearths (iron and steel).....	187

TABLE 2.—RELATIVE WAGES IN LEADING OCCUPATIONS, DECEMBER, 1917, COMPARED WITH 1914-15.

[1914-15=100.]

	1917 compared with 1914-15.
Compositors and linotype operators (newspapers, day).....	106
Electrotypers (finishers).....	111
Hod carriers (plaster tending).....	112
Plumbers and gas fitters (building trades).....	113
Structural-iron workers (building trades).....	113
Steam fitters (building trades).....	114
Motormen and conductors (street railways).....	115
Sheet-metal workers (building trades).....	116
Mining (anthracite).....	118
Inside wiremen (building trades).....	120
Blacksmiths (railroad shops, southeastern).....	123
Boiler makers (railroad shops, southeastern).....	124
Longshoremen (New York).....	125
Machinists (navy yard, Philadelphia).....	126
Machinists (railroad shops, southeastern).....	129
Pick mining, bituminous (Hocking Valley district).....	130
Ship smiths (navy yard, Philadelphia).....	134
Ship fitters (navy yard, Philadelphia).....	136
Pipe fitters (navy yard, Philadelphia).....	137
New York State, average (weekly earnings).....	139
Silk industry (earnings).....	140
Riveters, chippers, and calkers (shipyard, Washington, Oreg.).....	144
Blacksmiths (shipyard, San Francisco).....	144
Machinists (shipyard, San Francisco).....	144
Electricians (shipyard, San Francisco).....	144
Shipwrights, joiners, boatmen, millmen (shipyard, San Francisco).....	147
Machine mining, bituminous (Hocking Valley district).....	149
Cotton finishing manufacturing (earnings).....	153
Hosiery and underwear manufacturing (earnings).....	157
Common labor (iron and steel).....	160
Blast furnaces (iron and steel).....	161
Loftsmen (shipyards, Delaware River).....	165
Electricians (shipyards, Delaware River).....	165
Sheet-metal workers (shipyard, San Francisco).....	165
Cotton manufacturing (earnings).....	165
Open hearths (iron and steel).....	167
Sheet-metal workers (shipyards, Delaware River).....	167
Machinists (shipyards, Delaware River).....	167
Woolen manufacturing (earnings).....	170
Riveters (shipyards, Delaware River).....	175
Inside labor (most occupations), bituminous (Hocking Valley).....	176
Boot and shoe industry (earnings).....	177
Holders-on (shipyards, Delaware River).....	197
Blacksmiths (shipyards, Delaware River).....	205

EFFECT OF THE EIGHT-HOUR LAW UPON WAGES AND HOURS OF RAILROAD EMPLOYEES.

On August 29, 1916, in an address to Congress, President Wilson recommended, among other things, the establishment of an eight-hour day as the legal basis of work and wages alike in the employment of railroad employees actually engaged in the work of operating trains in interstate transportation and the authorization of the appointment by him of a commission of three men "to observe actual results in experience of the adoption of the eight-hour day in railway transportation alike for the men and for the railroads; its effects in the matter of operating costs, in the application of the existing practices and agreements to the new conditions, and in all other practical aspects, with the provision that the investigators shall report their conclusions to the Congress at the earliest possible date, but without

recommendation as to legislative action, in order that the public may learn from an unprejudiced source just what actual developments have ensued." This appearance of the President before Congress was actuated by failure of an effort on his part to effect an agreement between the national conference committee of the railways, representing more than 90 per cent of the business done by the railroads in the United States, and the railroad brotherhoods,¹ and thus avert a general strike threatened by the employees because certain demands as to wages and hours of labor had been definitely rejected by the railroads and efforts to bring the differences to arbitration had been futile. Congress acceded to the President's suggestion and passed the so-called eight-hour law, which was approved by the President on September 3 and 5, 1916. On October 11, 1916, the commission which Congress had authorized was appointed by the President. The members were George W. Goethals, chairman, E. E. Clark, and George Rublee. The commission entered upon its duties in November. With the cooperation of the railroads and the brotherhoods a large mass of data was collected and has been brought together in the report of the commission submitted to Congress and the President under date of December 29, 1917.²

At the outset attention is called to the fact that section 2 of the law directs the commission to report the operation and effects of the institution of the eight-hour standard workday and the facts and conditions affecting the relations between common carriers and employees, but feeling that this language was broad enough "to authorize an encyclopedia on railroad labor," the commission decided to restrict its work somewhat and deal only with topics connected with the proposal to insert an eight-hour basic day in the wage schedules as the time measure of a day's work, and with topics connected with the proposal of the roads.

This indicated that there should be shown the increase in wages resulting from the law, as well as the actual hours and wages paid, by classes of service and occupations; the relation of "straight" time and overtime payments and arbitrary allowances; a description of the leading features of the wage schedules; the conditions of train operation which result in overtime, and the possibility of eliminating those conditions; and, finally, a description of the conditions under which train and engine crews work. This view of the scope of the commission's duties eliminates the question of the reasonableness of the present wages of train or engine crews, as well as the question of the financial condition of carriers as bearing upon their ability to pay an increase. These excluded questions it did not seem possible to deal with adequately.

¹ The Brotherhood of Locomotive Engineers, the Brotherhood of Locomotive Firemen and Enginemen, the Order of Railway Conductors, and the Brotherhood of Railroad Trainmen.

² Report of the Eight-Hour Commission. Commission on standard workday of railroad employees, created by act of Congress approved Sept. 3 and 5, 1916, 39 Stat. L., p. 721, sec. 2. Washington, 1918, 503 pp.

The report states that the eight-hour day as the measure of a day's work for the purpose of reckoning compensation for certain classes of railroad employees has become an accomplished fact and that it is understood that the roads have no intention of further contesting the establishment of the eight-hour day for the employees concerned. It appears that in the calendar year 1916 there were 308,373 employees—engineers, firemen, conductors, assistant conductors, baggage men, brakemen, and flagmen in road and yard service, and generally hostlers—who were affected by the eight-hour law, this number representing 17.37 per cent of the total number of railroad employees. The aggregate compensation paid to these employees was \$410,743,044 or 28.11 per cent of the compensation paid to all railroad employees.

In giving the increase in the cost to the railroads due to the eight-hour law, the commission presents a table showing that during the month of January, 1917, companies operating 104,355 miles of road paid out on account of their passenger, freight, and yard services wages amounting to an increase of \$2,209,000 (15.17 per cent) over the compensation paid under the 1916 schedules and then estimates that if the percentage indicated were applied to the total compensation paid to these same classes of employees in 1916 the total increase in wage cost would be \$61,534,532.¹ Employees in the yard service received approximately 24.6 per cent increase in wages; those in the freight service about 15 per cent increase; and those in the passenger service about 2.7 per cent increase.

This showing for the first month of 1917, however, is subject to some modification, for the report states that in yard service there has been a widespread change to eight-hour shifts, and reduction in hours does not mean that the men get the increase noted above; they may even experience a decrease, because where they formerly worked 12 hours on a 10-hour basis they are now working 8 hours for the former 10 hours' pay. Reports covering 175,744 miles of road showed that 11,390 yard crews were placed on 8-hour shifts, and that at the time of the reports 3,486 crews were still working more than 8 hours. This reduction in hours, it is pointed out, does not mean an escape by the carriers from all the increased costs shown in January, for with 24.6 per cent increase in pay per hour the total labor cost must be increased unless the total number of man hours required for a given amount of switching is reduced through increased efficiency.

With regard to the employees, a special study of 69,202 employees in 13 occupations on 64 roads showed that 12.6 per cent received no increase in January, 1917, as a result of the law, and 30.2 per cent

¹ It is stated that this does not include the increase paid to hostlers, which would add about \$1,875,000 to this amount.

received increases of less than \$10 per month, while 23.4 per cent received increases of \$20 and under \$30 per month. Data covering engineers on certain selected roads show that during the months of January, March, and May, 1917, the greatest increases were in the yard service and the smallest were in the through passenger service.

In the report it is explained, in connection with a discussion of overtime payments and additional allowances under the eight-hour law, that the eight-hour standard which is being observed in road service is the so-called speed basis of 12.5 miles per hour. This means, for example, that for a run of 100 miles overtime begins after 8 hours have elapsed and for a run of 125 miles overtime will begin at the expiration of 10 hours, 10 being the quotient of 125 divided by 12.5. The effect of the law as applied, it is stated, is normally to leave the compensation for "straight" mileage (that is, all mileage paid for at the mileage rate) or "straight" time (that is, number of hours which constitute a day) unchanged, the same payment now being made for a normal day of 8 hours as was formerly made for a normal day of 10 hours. The mileage rate remains unchanged while the rate per hour is increased. Thus the increase in pay which the observance of the law brings to employees is chiefly in the form of payment for more hours of overtime at an increased rate per hour. This is shown by the statement that for 29,608 employees of a certain railroad, in January, 1917, the "straight" payments for miles, hours, or trips aggregated \$2,624,078 under the 1916 schedules, and \$2,622,267 under the eight-hour law, or substantially the same. The increase in compensation appears in the overtime payments, being for this road \$321,420 under the 1916 schedules and \$857,661 under the eight-hour law, an increase of \$536,241, or 166.8 per cent.

The average hours of service were found to be shortest in the through passenger service, ranging, on selected roads, from 5.4 to 10.4 per run; and that on the eastern roads, for example, in slow freight service the actual time during which engineers are on duty is from 11.7 to 13 hours per run. In local freight service men work from 11.2 to 12.6 hours per run in all districts.

Several special studies and reports were made under the direction of the commission, the subjects being railway wage schedules and agreements, employment conditions in road and yard service, and the practicability of an actual eight-hour day in railroad train service.

WAGE SCALE FOR ALABAMA COAL MINERS.

In the December issue of the MONTHLY REVIEW (pp. 110 and 111) attention was directed to an order issued by the President on October 27, 1917, granting an increase of 45 cents per ton over the scale of

prices for bituminous coal at the mine, as prescribed in the Executive order of August 21, 1917, this increase being authorized in connection with increases of wages of miners as set forth in an agreement entered into at Washington on October 6, 1917, between the operators and miners of the central field, by which an advance of 10 cents per ton was granted to miners, advances ranging from 75 cents to \$1.40 a day were granted to laborers, and an advance of 15 cents was granted for yardage and day workers.

It appears, however, that in Alabama the conditions affecting the industry are different from those in other mining fields, leading the operators and miners to reach an agreement, having the approval of the United States Fuel Administrator, as the result of which a special wage scale will prevail in that territory. This agreement, according to the Fuel Administrator, marks the settlement of a labor controversy which had been in progress for several months and which threatened to interfere with the operation of the mines. An order issued by the Fuel Administrator on February 8 specifies that the allowance of 45 cents per ton to operators, as provided in the Washington agreement of October 6, 1917, shall not apply to Alabama. The order is as follows:

An agreement having been reached by the mine operators of the State of Alabama and the mine workers of Alabama, whereby a scale of wages for miners which is satisfactory to both the operators and miners committee, and the same having been approved by the United States Fuel Administrator; and it having been further mutually agreed between the mine operators and the State of Alabama and the mine workers of Alabama that the above wage agreement modifies the Washington wage agreement of October 6, 1917, in so far as the operators and miners of the State of Alabama are concerned;

The United States Fuel Administrator, acting under authority of an Executive order of the President of the United States dated August 23, 1917, appointing said Administrator, and in furtherance of the purpose of said order and of the act of Congress therein referred to and approved August 10, 1917,

Hereby orders and directs that the terms of the Washington wage agreement of October 6, 1917, and of the orders of the President of the United States and the United States Fuel Administrator of October 27, 1917, allowing 45 cents to be added, until further notice, to the selling prices established by the President, shall not apply to any coal-mining operations whatsoever in the State of Alabama.

The labor controversy, to which reference has been made, threatened serious complications and was settled only after a conference between representatives of the miners and operators and the Fuel Administrator, which resulted in the submission, on December 14, 1917, of recommendations by the Fuel Administrator to the miners' convention at Birmingham, the adoption of the recommendations by the convention on December 21, and the order issued by the Fuel Administrator on January 12, 1918, calling upon the operators to accept without delay the decision of the Administrator.

The salient features of the settlement plan are set forth in the following abridged communication from the Fuel Administrator to the mine workers of Alabama:

* * * the United States Fuel Administrator recommends the following settlement of matters in dispute:

First. That the coal operators of Alabama recognize the right of their employees to join any union, labor organization, or society they may choose, and agree that they shall not be discriminated against in the distribution of work for having joined such organization, providing always that in their affiliation and in the conduct of the organization nothing is done to disturb the relations existing between employer and employee by methods or intimidation or coercion, and provided that employees joining any organization recognize the right of each employee to join or not as he may individually decide, and also recognize the right of the company to insist that no employee shall use the company's time for any purpose other than that for which he is paid and that he must not interfere with the operation of the mine or knowingly do that which will reduce the output.

Second. That they will, upon application through the usual channels for employment, reemploy any man who has been discharged because of his affiliation with the union, but will not obligate themselves to reemploy any man who has made unlawful threats or committed unlawful acts, unless the employer is satisfied that the same acts will not again be committed by the applicant.

Any dispute under this clause shall be referred to the person whose appointment is hereinafter provided for as the permanent umpire, to whom all questions of dispute, as herein provided, shall be referred.¹

Third. The right of the men to meet in peaceful assemblage shall not be interfered with or abridged.

Fourth. That the managers receive committees of their workmen, said committees to be selected at meetings called for the purpose not oftener than every three months, to present any grievance, disagreement, or dispute that they may have to submit, which shall not be any matter herein settled, waived, rejected or postponed. If they fail to arrive at satisfactory adjustment with the superintendent, of matters complained of, the same are to be submitted to the highest official of the company available, who shall pass upon the question within a period of 10 days. Should the matter complained of not be adjusted satisfactory to the committee, then either the committee or the company may appeal to the permanent umpire herein provided for, whose decision shall be made within 30 days and be final and binding upon all parties.

* * *

Sixth. A checkweighman selected as required by law from among mine workers employed at the mine may be placed on each tippie at the expense of the miners and his duties shall be those prescribed by the laws of the State. * * *

Seventh. In view of the fact that a large proportion of the coal produced in Alabama is sold under contracts that do not expire until July 1, 1918, the consideration of the following matters, namely, the uniform readjustment of tonnage and yardage rates, all day labor and dead work rates, the increase or decrease of the existing wage rates, it is agreed shall be postponed until July 1, 1918. * * *

Ninth. This understanding shall be in effect and binding upon the coal operators and mine workers during the continuation of the war, and not to exceed two years from April 1, 1918.

Tenth. The semimonthly pay day shall be established at all mines. * * *

¹ During the latter part of February H. C. Selheimer, of Birmingham, was appointed umpire by United States Judge Grubb, of the Northern District of Alabama.

The operator and his superintendent and his mine foremen shall be respected in the management of the mine and the direction of the working force. The authority to hire or discharge shall be vested in the mine superintendent or mine foreman.
* * *

Provision is made for the establishment of the 8-hour work day, from 7.30 a. m. to 4 p. m., with one-half hour for lunch. The agreement contains a paragraph binding the operators and miners to accept the so-called penalty clause proposed by the Fuel Administrator as a safeguard against any suspension, by reason of labor disputes, of coal production during the war. Under this clause which has been put into every working agreement approved by the Fuel Administrator, both mine workers and operators undertake to pay a heavy penalty for each day production is curtailed through the fault of either party to the agreement.

CHANGES IN WAGE RATES IN THE DRESS AND WAIST INDUSTRY OF NEW YORK CITY.

In an article describing the recent workings of trade agreements in the women's clothing industries of New York City, published in the December, 1917, issue of the MONTHLY REVIEW, mention was made (p. 34) of the fact that conferences were being held between representatives of the Dress and Waist Makers' Union and the New York Dress and Waist Manufacturers' Association for the purpose of reaching some mutually satisfactory adjustment regarding a demand made by the workers for a general wage increase of 25 per cent.

The result of these conferences has recently been announced. It is of interest to note that this wage adjustment was arrived at by a mutual understanding between the parties themselves and without the assistance of the board of arbitration of the industry. The new wage rate went into effect on January 7, 1918.

The following table shows the new rates as well as those which were in operation prior to this year:

NEW AND OLD WAGE RATES.

Occupation.	Rate per—	In effect—	
		Jan. 7, 1918.	Prior to Jan. 7, 1918.
WEEK WORKERS.			
Cutters:			
Full-fledged, doing also pattern grading.....	Week...	\$31.00	\$29.00
Full-fledged.....	do.....	29.50	27.50
Grade A—First year in the trade.....	do.....	8.00	7.00
Grade B—Second year in the trade.....	do.....	14.50	13.25
Grade C—Third year in the trade.....	do.....	22.00	20.00
Grade D—Fourth year in the trade.....	do.....	25.00	23.00
Drapers.....	do.....	18.00	16.50
Joiners.....	do.....	15.50	14.30
Sample makers.....	do.....	18.00	16.50
Examiners.....	do.....	14.00	12.50
Finishers.....	do.....	12.00	10.50
Pressers (on woolens).....	do.....	27.00	25.00
Ironers, male.....	do.....	20.00	18.50
Ironers, female.....	do.....	17.00	15.50
Cleaners:			
Girls under 16, first year.....	do.....	8.00	7.00
Girls under 16, second year.....	do.....	9.00	8.00
Girls over 16, first year.....	do.....	9.00	8.00
Girls over 16, second year.....	do.....	10.50	9.50
PIECEWORKERS.			
Operators.....	Hour ¹ ..	.4125	.38
Pressers.....	do.....	.53	.49
Ironers.....	do.....	.4125	.38
Hemstitchers.....	} do.....	.4125	.38
Lace runners.....			
Button sewers.....			
Tuckers.....			
Closers.....	} do.....	.5425	.50
Sleeve setters.....			
Hemmers.....			
Buttonhole makers.....			

¹ Base rate.

INCREASE IN SALARIES IN THE CENTRAL ADMINISTRATIVE OFFICE UNDER THE MINISTER OF WAR IN FRANCE.¹

The Journal Officiel of January 5, 1918, publishes two decrees modifying the decrees of February 1, 1909, and providing for a reorganization of the central administrative office under the minister of war.

The decrees provide for a slight increase in the number of assistant chiefs and clerks and for the following increases in salaries: Assistant chiefs of bureaus have been advanced from 7,000 to 8,000 francs (\$1,351 to \$1,544) for the higher grades: from 6,500 to 7,000 francs (\$1,254.50 to \$1,351) for the first grade; from 6,000 to 6,500 francs (\$1,158 to \$1,254.50) for the second grade; and from 5,500 to 6,000 francs (\$1,061.50 to \$1,158) for the third grade. Principal clerks' salaries are increased on an average 1,000 francs (\$193) and other clerks' salaries by 600 francs (\$115.80) and 700 francs (\$135.10).

The salaries are to be so distributed that the average salary of the chiefs shall not exceed 9,500 francs (\$1,833.50); of the assistant chiefs, 6,500 francs (\$1,254.50); of the principal clerks, 5,000 francs (\$965); and for all other classes, 3,250 francs (\$627.25).

¹ La République Française, Paris, Jan. 6, 1916.

MINIMUM WAGE.

MINIMUM WAGE LAW OF MINNESOTA HELD CONSTITUTIONAL.

Another State is added to the growing list of those whose laws providing a minimum standard of wages for women and minors have been upheld by their courts of last resort. Eleven States had laws of this type at the beginning of 1917, and one other State enacted similar legislation during that year. The first determination of constitutionality was by the Supreme Court of Oregon, but despite the favorable action of this court both legislation and enforcement were largely at a standstill pending the determination of the appeal taken to the Supreme Court of the United States. This case was decided April 9, 1917, the result being to leave the decision of the Oregon Supreme Court unchanged. The Supreme Court was equally divided, Mr. Justice Brandeis, who had acted as an attorney for the State in upholding the law prior to his elevation to the bench, not voting (MONTHLY REVIEW, May, 1917, pp. 687, 688). Following the above the Supreme Court of Arkansas, on June 4, 1917, sustained the minimum wage law of that State (MONTHLY REVIEW, November, 1917, pp. 948, 949).

A third State, Minnesota, takes its place beside Oregon and Arkansas by a decision of its supreme court handed down December 21, 1917 (*Williams v. Evans*, 165 N. W., 495). The law of Minnesota resembles that of Oregon rather than that of Arkansas, in that its administration rests with a commission having certain discretionary powers and does not prescribe by statute the scale of wages to be paid. Two points were therefore raised against the act, one involving the power of the legislature to interfere with private contracts and the other raising the question of the delegation of legislative authority. The action originated in a motion to enjoin the enforcement of the law, and the court below issued the injunction on the ground that the statute was unconstitutional and void, overruling the demurrer of the commission holding the contrary view. The Supreme Court held, however, that "we do not look to the Constitution to find the legislative power of a State. The State legislature possesses all legislative power not withheld or forbidden by the terms of the State or Federal Constitution." The fourteenth amendment to the Federal Constitution was then discussed and numerous cases cited in which the police power of the State had been exercised to modify or restrict the liberty of contract in behalf of the general

welfare as conceived by the legislature. The court found the limits to be in arbitrary restraint as opposed to reasonable regulation, citing the decision of the Supreme Court in the *Lochner* case (198 U. S., 45, 25 Sup. Ct., 539; Bul. No. 59, p. 340).

The court decided that it had no concern with the policy or justification of such legislation, but must consider only whether there was a reasonable basis for the legislative belief that the conditions of employment were dangerous to the morals of the workers and to the health of the workers themselves and of future generations as well. Conceding that such statutes if applicable to men might not necessarily be held valid, a difference was held to exist in the case of women in the matter of their ability to secure a just wage, and furthermore in the consequences of an inadequate wage. Reference was made to the recognition of the economic facts involved by the Supreme Court of the United States in the case of *Muller v. Oregon* (208 U. S., 412, 28 Sup. Ct., 324; Bul. No. 75, p. 631), and *Muller v. Wilson* (236 U. S., 373, 35 Sup. Ct., 342; Bul. No. 189, p. 133). It was also noted that the Oregon and Arkansas laws had been upheld by the supreme courts of their respective States, as mentioned above, and the law was sustained as applicable both to women and to minors, the latter by like reasoning as for women.

As to the contention that the law was unconstitutional because it delegated legislative power to the commission, it was held that there was no such delegation, but only an authorization to determine such facts as the law itself requires to be decided before it shall take effect, saying, "The true distinction is between the delegation of power to make the law, which necessarily involves a discretion as to what it shall be, and conferring authority or discretion as to its execution, to be exercised under and in pursuance of the law. The first can not be done; to the latter no valid objection can be made." *C. M. & Z. R. R. Co. v. Commissioners of Clinton County*, 1 Ohio St., 77, quoted in *Field v. Clark*, 143 U. S., 649, 12 Sup. Ct., 495. Other cases were also cited, some of which were referred to in the discussion of a case before the Supreme Court of Wisconsin involving the same question (MONTHLY REVIEW, July, 1916, pp. 136-147; see also MONTHLY REVIEW for February, 1917, pp. 208, 209).

Other minor objections were raised relating to classification and to the powers of advisory boards. As to the former it was said that the objection was not well taken, the limitations of the Constitution being flexible enough to permit of practical application; while the latter point was not involved in the case, and the validity of these provisions could not affect the validity of the entire act. Therefore, without passing upon the specific point, the constitutionality of the law in its general purpose and method was upheld.

EMPLOYMENT AND UNEMPLOYMENT.

WORK OF PUBLIC EMPLOYMENT OFFICES IN THE UNITED STATES AND OF PROVINCIAL EMPLOYMENT OFFICES IN CANADA.

Data are presented in the following table showing the operations of the public employment offices for the month of January, 1918, and in cases where figures are available, for the corresponding month in 1917. For the United States figures are given from public employment offices in 39 States and the District of Columbia, Federal employment offices in 28 States, Federal-State employment offices in 3 States, a Federal-State-county-municipal employment office in 1 State, a Federal-municipal employment office in 1 State, State employment offices in 15 States, a State-county-municipal employment office in 1 State, State-municipal employment offices in 3 States, municipal employment offices in 8 States, and a municipal-private employment office in 1 State. Figures from two Canadian employment offices are also given.

OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, JANUARY, 1917 AND 1918.

UNITED STATES.

State, city, and kind of office.	Applica- tions from employers.		Persons asked for by em- ployers.		Persons applying for work.				Persons re- ferred to positions.		Positions filled.	
					New regis- trations.		Renewals.					
	Jan., 1917.	Jan., 1918.	Jan., 1917.	Jan., 1918.	Jan., 1917.	Jan., 1918.	Jan., 1917.	Jan., 1918.	Jan., 1917.	Jan., 1918.	Jan., 1917.	Jan., 1918.
<i>Alabama.</i>												
Mobile (Federal).....	(1)	6	(1)	1,364	6	2 91	(1)	(1)	(1)	46	(1)	18
<i>Arizona.</i>												
Phoenix (Federal).....		370		897		2 468		(1)		703		726
<i>Arkansas.</i>												
Little Rock (Federal)...		27		1,873		2 824		(1)		538		508
<i>California.</i>												
Fresno (State).....		508		1,014		2 625		(1)		970		876
Los Angeles (Federal)...		197		329		2 311		(1)		272		213
Los Angeles (State- municipal).....	2,526	2,749	5,257	4,157	22,486	23,887	(1)	(1)	5,139	4,417	4,458	4,906
Oakland (State).....	676	1,163	871	1,595	519	2 925	426	(1)	927	1,571	705	1,166
Sacramento (Federal)...		4		67		2 89		(1)		20		20
Sacramento (State)....	219	270	433	869	233	2 597	108	(1)	321	782	245	664
San Diego (Federal)....	436	661	661	952	2 893	2 991	(1)	(1)	1,028	1,275	642	827
San Francisco (Fed- eral).....	471	708	786	1,459	2 1,171	2 2,473	(1)	(1)	620	1,092	371	1,434
San Francisco (State)...	1,069	1,837	1,729	3,360	1,993	2 2,556	628	(1)	1,818	3,633	1,324	2,628
Total.....									9,853	14,632	7,745	12,734

¹ Not reported.

² Number applying for work.

MONTHLY REVIEW OF THE BUREAU OF LABOR STATISTICS. 147

OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, JANUARY, 1917 AND 1918—Continued.

UNITED STATES—Continued.

State, city, and kind of office.	Applica- tions from employers.		Persons asked for by em- ployers.		Persons applying for work.				Persons re- ferred to positions.		Positions filled.	
					New regi- strations.		Renewals.					
	Jan., 1917.	Jan., 1918.	Jan., 1917.	Jan., 1918.	Jan., 1917.	Jan., 1918.	Jan., 1917.	Jan., 1918.	Jan., 1917.	Jan., 1918.	Jan., 1917.	Jan., 1918.
<i>Colorado.</i>												
Colorado Springs (State)	410	612	410	612	1 522	1 676	(2)	(2)	336	(2)	336	534
Denver (Federal)	33	15	33	160	1 78	1 445	(2)	(2)	53	385	18	87
Denver No. 1 (State)	155	353	155	(2)	1 378	1 768	(2)	(2)	135	(2)	135	295
Denver No. 2 (State)	143	560	143	560	1 143	1 495	(2)	(2)	107	(2)	107	149
Pueblo (State)		365		365		1 413		(2)		(2)		352
Total									631	385	590	1,327
<i>Connecticut.</i>												
Bridgeport (Federal)		526		621		789				612		560
Bridgeport (State)	(2)	(2)	713	621	1 800	1 789	(2)	(2)	(2)	(2)	624	560
Hartford (State)	(2)	(2)	835	612	1 087	1 712	(2)	(2)	(2)	(2)	688	541
New Haven (State)	(2)	(2)	823	707	1 288	1 880	(2)	(2)	(2)	(2)	701	614
Norwich (State)	(2)	(2)	259	267	1 272	1 303	(2)	(2)	(2)	(2)	234	249
Waterbury (State)	(2)	(2)	159	115	1 173	1 226	(2)	(2)	(2)	(2)	109	91
Total									(2)	612	2,356	2,615
<i>Delaware.</i>												
Wilmington (Federal)		8		800		1 821		(2)		766		736
<i>District of Columbia.</i>												
Washington (Federal)		334		1,863		1,755		(2)		2,039		1,755
<i>Florida.</i>												
Jacksonville (Federal)	(2)	13	(2)	1,268	18	1 956	(2)	(2)	2	868	2	633
Key West (Federal)						1 24	(2)	(2)		8		8
Miami (Federal)	24	7	29	13	96	1 61		(2)	30	17	18	17
Pensacola (Federal)		2		35		1 2		(2)				
Tampa (Federal)						1 34		(2)				
Total									32	893	20	653
<i>Georgia.</i>												
Atlanta (Federal)		45		748		1 216		(2)		77		77
Savannah (Federal)	1	6	25	175	1 20	1 235	(2)	(2)	15	23	14	15
Total									15	100	14	92
<i>Idaho.</i>												
Boise (municipal)	124		263	100	1 263	1 78	(2)	(2)	124	78	124	77
Moscow (Federal)	1	15	1	80	1	1 120	(2)	(2)	1	56	1	56
Total									125	134	125	133
<i>Illinois.</i>												
Chicago (Federal)	666	1,606	3,484	11,487	3,646	10,870	(2)	(2)	3,088	10,356	2,892	8,435
Chicago (State)	4,373	3,296	16,288	14,135	14,258	9,264	1,750	5,965	15,411	14,428	11,783	11,999
East St. Louis (State)	616	671	1,204	933	562	357	568	539	1,093	879	989	827
Peoria (State)	641	811	812	1,424	162	290	630	852	743	1,127	742	1,120
Rock Island-Moline (State)	318	778	581	2,893	356	1,190	250	1,001	456	2,125	61	2,072
Rockford (State)	455	445	754	1,010	458	689	265	198	581	650	522	591
Springfield (State)	374	533	467	788	160	348	300	713	416	690	389	577
Total									21,788	30,255	17,378	25,621

1 Number applying for work.

2 Not reported.

148 MONTHLY REVIEW OF THE BUREAU OF LABOR STATISTICS.

OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, JANUARY, 1917 AND 1918—Continued.

UNITED STATES—Continued.

State, city, and kind of office.	Applica- tions from employers.		Persons asked for by em- ployers.		Persons applying for work.				Persons re- ferred to positions.		Positions filled.	
					New regis- trations.		Renewals.					
	Jan., 1917.	Jan., 1918.	Jan., 1917.	Jan., 1918.	Jan., 1917.	Jan., 1918.	Jan., 1917.	Jan., 1918.	Jan., 1917.	Jan., 1918.	Jan., 1917.	Jan., 1918.
<i>Indiana.</i>												
Evansville (State).....	136	18	359	87	161	568	32	105	432	217	359	217
Fort Wayne (State)....	318	358	440	685	1 136	(2)	(2)	(2)	435	676	409	676
Indianapolis (Federal) .	199	91	592	560	1 774	1 677	(2)	(2)	511	516	423	470
Indianapolis (State)....	625	882	669	875	689	800	73	75	689	875	575	852
South Bend (State).....	120	130	464	241	383	400	24	163	250	400	228	231
Terre Haute (State)....	161	99	447	450	1 434	345	(2)	87	434	420	372	420
Total.....									2,751	3,104	2,366	2,866
<i>Iowa.</i>												
Des Moines (Federal- State).....	26	47	58	428	87	139	25	24	49	131	24	69
<i>Kansas.</i>												
Topeka (State).....	87	53	136	68	71	74	4	1	65	59	60	51
<i>Kentucky.</i>												
Louisville (State).....	157	103	157	103	1 343	1 137	(2)	(2)	157	117	157	117
Louisville (municipal- private).....		291	315	384	351	384	1,000	478	349	387	145	243
Total.....									506	504	302	360
<i>Louisiana.</i>												
New Orleans (Federal- State).....	65	109	125	1,525	363	1 217	(2)	(2)	341	1,238	75	915
<i>Maine.</i>												
Portland (Federal).....		2		57		1 12		(2)		2		2
<i>Maryland.</i>												
Baltimore (Federal)....	107	161	125	3,273	1 294	1 2,885	(2)	(2)	214	2,193	214	953
<i>Massachusetts.</i>												
Boston (Federal).....	6	161	16	3,356	1 49	1 5,317	(2)	(2)	7	2,894	7	1,382
Boston (State).....	1,685	1,121	1,898	1,491	1 1,122	1 1,458	(2)	(2)	3 3,075	2 2,837	1,334	1,152
Springfield (State)....	804	596	1,067	1,009	1 403	1 421	(2)	(2)	3 1,282	3 1,155	787	679
Worcester (State).....	969	632	1,300	831	1 514	1 607	(2)	(2)	3 1,383	3 1,189	757	524
Total.....									5,747	8,075	2,885	3,737
<i>Michigan.</i>												
Battle Creek (State)....	53	156	144	413	1 106	1 550	(2)	(2)	93	413	93	413
Bay City (State).....	38	24	122	154	1 193	1 236	(2)	(2)	61	180	61	180
Detroit (State).....	1,700	1,258	4,030	4,510	(2)	1 4,933	(2)	(2)	4,030	4,933	4,030	4,530
Flint (State).....	491	213	491	708	(2)	1 783	(2)	(2)	491	610	491	594
Grand Rapids (State)...	437	320	679	1,074	(2)	1 1,354	(2)	(2)	567	1,162	567	1,060
Jackson (State).....	279	436	546	458	1 574	1 510	(2)	(2)	540	441	(2)	436
Kalamazoo (State).....	144	159	344	239	1 411	1 479	(2)	(2)	344	234	344	206
Lansing (State).....	43	103	201	535	1 112	1 1,027	(2)	(2)	99	525	99	525
Muskegon (State).....	77	43	212	345	1 217	1 288	(2)	(2)	185	184	159	183
Saginaw (State).....	102	74	508	335	1 513	1 602	(2)	(2)	513	335	513	335
Total.....									6,923	9,017	6,357	8,462

¹ Number applying for work.² Not reported³ Number of offers of positions.

MONTHLY REVIEW OF THE BUREAU OF LABOR STATISTICS. 149

OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, JANUARY, 1917 AND 1918—Continued.

UNITED STATES—Continued.

State, city, and kind of office.	Applica- tions from employers.		Persons asked for by em- ployers.		Persons applying for work.				Persons re- ferred to positions.		Positions filled.	
					New regis- trations.		Renewals.					
	Jan., 1917.	Jan., 1918.	Jan., 1917.	Jan., 1918.	Jan., 1917.	Jan., 1918.	Jan., 1917.	Jan., 1918.	Jan., 1917.	Jan., 1918.	Jan., 1917.	Jan., 1918.
<i>Minnesota.</i>												
Duluth (State).....	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	1,192	918
Minneapolis (State)....	(1)	1,084	(1)	1,605	(1)	2,1524	(1)	(1)	(1)	1,450	1,557	1,245
St. Paul (State).....	(1)	(1)	(1)	479	(1)	(1)	(1)	(1)	(1)	(1)	817	463
Total.....									(1)	1,450	3,566	2,626
<i>Mississippi.</i>												
Gulfport (Federal).....	(1)	1	(1)	210	83	2,209	(1)	(1)	(1)	162	(1)	127
<i>Missouri.</i>												
Kansas City (Federal- State).....	411	578	620	1,770	(1)	2,360	(1)	(1)	697	1,666	606	1,539
St. Joseph (State).....	(1)	519	887	1,011	(1)	842	(1)	18	(1)	860	702	828
St. Louis (Federal- State).....	322	201	1,060	1,490	(1)	2,169	(1)	(1)	656	1,108	639	1,084
Total.....									1,353	3,634	1,947	3,451
<i>Montana.</i>												
Butte (municipal).....	393	(1)	(1)	581	2,940	2,667	(1)	(1)	(1)	(1)	261	484
<i>Nebraska.</i>												
Lincoln (Federal).....		69		86		2,82		(1)		82		69
Omaha (Federal-State- county-municipal)....	182	759	336	975	2,829	1,050	(1)	390	326	1,117	283	1,041
Total.....									326	1,199	283	1,110
<i>Nevada.</i>												
Reno (Federal).....	24	31	44	100	2,36	70	(1)	(1)	36	55	36	55
<i>New York.</i>												
Albany (State).....	472	577	793	872	521	690	334	449	823	1,077	468	629
Buffalo (Federal).....	948	979	1,574	1,829	2,1508	2,1254	(1)	(1)	1,808	1,530	1,402	1,013
Buffalo (State).....	983	969	1,779	1,829	1,478	999	98	255	1,934	1,540	1,390	1,013
New York City (Fed- eral).....	5,676	3,672	7,475	5,854	2,7212	2,7464	(1)	(1)	8,270	5,644	5,035	4,021
New York City (State).....	1,763	2,041	2,565	2,939	1,436	1,637	671	1,030	2,725	3,069	1,624	1,786
New York City (muni- cipal).....	3,025	1,897	3,320	2,256	2,2790	1,456	(1)	1,378	4,361	2,417	2,526	1,616
Rochester (State).....	1,250	985	1,828	1,472	936	1,081	720	504	1,658	1,432	942	787
Syracuse (State).....	953	878	1,341	1,465	893	829	227	328	1,204	1,398	818	1,038
Total.....									22,783	18,107	14,205	11,903
<i>Ohio.</i>												
Akron (State-muni- cipal).....	(1)	(1)	2,097	2,207	876	1,147	2,104	1,954	1,824	1,855	1,418	1,604
Athens (State-muni- cipal).....		(1)		56		49		82		53		28
Canton (State-muni- cipal).....		(1)		539		475		265		518		355
Chillicothe (State-mu- nicipal).....		(1)		360		267		244		331		265
Cincinnati (State-mu- nicipal).....	(1)	(1)	1,553	1,822	1,690	1,792	3,280	4,145	1,601	1,848	1,109	1,477
Cleveland (Federal)....	18	29	22	442	2,81	2,457	(1)	(1)	62	312	14	123
Cleveland (State-mu- nicipal).....	(1)	(1)	7,325	5,686	3,173	2,703	8,233	8,779	6,344	5,410	5,121	4,348

1 Not reported.

2 Number applying for work.

150 MONTHLY REVIEW OF THE BUREAU OF LABOR STATISTICS.

OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, JANUARY, 1917 AND 1918—Continued.

UNITED STATES—Continued.

State, city, and kind of office.	Applica- tions from employers.		Persons asked for by em- ployers.		Persons applying for work.				Persons re- ferred to positions.		Positions filled.	
					New regis- trations.		Renewals.					
	Jan., 1917.	Jan., 1918.	Jan., 1917.	Jan., 1918.	Jan., 1917.	Jan., 1918.	Jan., 1917.	Jan., 1918.	Jan., 1917.	Jan., 1918.	Jan., 1917.	Jan., 1918.
Ohio—Concluded.												
Columbus (State-municipal).....	(1)	(1)	2,801	2,723	744	1,019	2,367	3,712	1,926	2,714	1,674	2,181
Dayton (State-municipal).....	(1)	(1)	1,097	1,644	819	1,843	1,493	2,393	902	1,595	794	1,248
Hamilton (State-municipal).....		(1)		233		148		71		179		142
Lima (State-municipal).....		(1)		296		408		334		296		235
Mansfield (State-municipal).....		(1)		1,469		526		975		1,327		1,191
Marietta (State-municipal).....		(1)		94		166		65		140		103
Marion (State-municipal).....		(1)		337		366		119		379		309
Portsmouth (State-municipal).....		(1)		554		460		180		578		320
Sandusky (State-municipal).....		(1)		184		198		75		204		167
Springfield (State-municipal).....		(1)		327		452		641		311		248
Steubenville (State-municipal).....		(1)		616		365		348		621		444
Tiffin (State-municipal).....		(1)		152		212		398		243		154
Toledo (State-municipal).....	(1)	(1)	2,680	3,213	1,160	2,241	2,360	4,527	2,102	3,225	1,744	2,911
Washington C. H. (State-municipal).....		(1)		41		64		44		50		24
Youngstown (State-municipal).....	(1)	(1)	1,411	1,376	915	913	835	1,277	1,317	1,357	1,160	1,252
Zanesville (State-municipal).....		(1)		147		248		93		171		103
Total.....									16,078	23,717	13,034	19,232
Oklahoma.												
Enid (State).....	(1)	67	71	113	2 115	2 124	(1)	(1)	64	99	65	86
Muskogee (State).....	(1)	223	330	288	2 355	2 412	(1)	(1)	307	404	253	212
Oklahoma City (State).....	(1)	305	331	652	2 387	2 726	(1)	(1)	344	682	305	438
Tulsa (State).....	(1)	542	893	677	2 858	2 649	(1)	(1)	833	570	832	513
Total.....									1,548	1,755	1,455	1,249
Oregon.												
Astoria (Federal).....	20	5	37	16	2 484	2 12	(1)	(1)	35	2	33	2
Portland (Federal).....	601	1,409	829	3,226	21,278	23,619	(1)	(1)	838	2,970	796	2,778
Portland (municipal).....	423	1,410	587	2,454	2 380	2 110	(1)	(1)	(1)	(1)	565	2,457
Total.....									873	2,972	1,304	5,237
Pennsylvania.												
Altoona (State).....	(1)	19	248	264	93	2 193	26	(1)	101	186	97	176
Erie (State).....		69		443		326		67		266		235
Harrisburg (State).....	(1)	176	1,123	1,525	330	292	137	146	313	376	268	342
Johnstown (State).....	(1)	30	171	94	66	79	19	9	73	70	59	64
New Castle (State).....		61		184		2 46		(1)		25		25
New Kensington (State).....		40		93		2 316		(1)		57		57
Philadelphia (Federal).....		262		3,853		23,578		(1)		2,396		2,326
Philadelphia (State).....	(1)	528	1,838	10,132	1,040	9,623	968	341	1,655	8,600	1,438	8,380
Pittsburgh (Federal).....		44		1,735		2 945		(1)		638		614
Pittsburgh (State).....	(1)	147	883	3,059	710	1,394	235	146	687	1,429	633	1,393
Reading (State).....		10		15		2 41		(1)		8		2
Scranton (State).....		79		155		72		3		64		64
Williamsport (State).....		13		53		65		4		54		44
York (State).....		19		28		2 34		(1)		14		11
Total.....									2,829	14,183	2,495	13,733

¹ Not reported.² Number applying for work.

OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, JANUARY, 1917 AND 1918—Concluded.

UNITED STATES—Concluded.

State, city, and kind of office.	Applica- tions from employers.		Persons asked for by em- ployers.		Persons applying for work.				Persons re- ferred to positions.		Positions filled.	
					New regis- trations.		Renewals.					
	Jan., 1917.	Jan., 1918.	Jan., 1917.	Jan., 1918.	Jan., 1917.	Jan., 1918.	Jan., 1917.	Jan., 1918.	Jan., 1917.	Jan., 1918.	Jan., 1917.	Jan., 1918.
<i>Rhode Island.</i>												
Providence (Federal)...		16		548		1 650		(2)		403		304
Providence (State).....	149	146	167	243	103	312	84	30	(2)	243	167	243
Total.....									(2)	646	167	547
<i>South Carolina.</i>												
Charleston (Federal)...	2	11	2	226	1 155	1 175	(2)	(2)	137	117	137	117
<i>Tennessee.</i>												
Memphis (Federal).....	(2)	6	(2)	10,000	1 70	12,130	(2)	(2)	5	1,750	5	881
<i>Texas.</i>												
Dallas (municipal).....	192	219	310	459	246	3 710	16	16	344	570	298	298
El Paso (Federal).....		60		115		1 92		(2)		65		23
Fort Worth (Federal)....		32		610		11,561		(2)		939		483
Fort Worth (municipal)...	132	122	277	282	1,101	4 756	43	11	200	282	194	271
Galveston (Federal)....	13	4	13	8	1 34	1 91	(2)	(2)	29	36	19	29
Houston (Federal).....						15		(2)		2		2
Houston (municipal)....	(2)	(2)	(2)	(2)	652	585	248	228	(2)	(2)	675	695
Total.....									573	1,894	1,186	1,806
<i>Washington.</i>												
Aberdeen (Federal)....	12	6	38	23	1 114	1 53	(2)	(2)	36	23	36	23
Bellingham (Federal-municipal)....	106	99	237	191	1 307	1 273	(2)	(2)	201	154	182	133
Everett (municipal)....	(2)	(2)	(2)	245	(2)	(2)	(2)	(2)	(2)	64	256	234
North Yakima (Federal)....	201	245	296	573	1 595	1 690	(2)	(2)	257	446	232	416
Seattle (Federal).....	114	250	218	7,100	11,560	12,500	(2)	(2)	150	5,404	122	4,962
Seattle (municipal)....	2,306	3,900	3,523	7,183	(2)	(2)	(2)	(2)	3,591	7,032	3,161	6,688
Spokane (Federal).....	30	50	60	97	1 199	1 231	(2)	(2)	56	76	55	72
Spokane (municipal)....	972	809	1,995	1,325	1 125	1 75	20	(2)	1,907	1,290	1,907	1,112
Tacoma (Federal-municipal)....	335	552	677	1,344	11,424	13,768	(2)	(2)	656	1,255	650	1,220
Walla Walla (Federal)....	34	250	58	290	1 321	1 240	(2)	(2)	45	108	32	93
Total.....									6,899	15,852	6,633	14,958
<i>Wisconsin.</i>												
La Crosse (State-municipal)....	210	92	117	294	1 221	275	(2)	(2)	141	214	63	137
Milwaukee (State-county-municipal)....	3,735	1,293	1,628	4,229	3,224	4,061	(2)	(2)	3,373	4,085	2,591	3,222
Oshkosh (State-municipal)....	189	108	126	187	1 178	174	(2)	(2)	113	107	80	72
Superior (State-municipal)....	666	215	269	952	1 609	800	(2)	(2)	682	791	388	733
Total.....									4,309	5,197	3,122	4,164
Grand total.....									107,349	168,534	90,895	146,166

CANADA.

<i>Quebec.</i>												
Montreal (provincial)...	267	165	591	475	1 400	1 428	(2)	(2)	500	458	406	398
Quebec (provincial)....	(2)	19	113	85	1 153	1 85	(2)	(2)	(2)	58	102	45
Total.....									500	516	508	443

¹ Number applying for work.
² Not reported.

³ Including 640 transients.
⁴ Including 476 transients

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The table below shows, by months and kind of office, the operations of the public employment offices reporting to the Bureau of Labor Statistics for the year 1917.

OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, BY MONTHS, 1917.

Month, and kind of office.	Applica- tions from employers.	Persons asked for by em- ployers.	Persons applying for work.		Persons referred to positions.	Positions filled.
			New regi- strations.	Renewals.		
January:						
Federal.....	13,869	26,002	¹ 33,780	(²)	26,698	20,008
State-county, etc.....	40,049	78,867	62,152	30,472	91,263	77,601
Total.....	53,918	104,869	95,932	30,472	117,961	97,609
February:						
Federal.....	12,473	28,482	¹ 29,701	(²)	23,532	13,367
State-county, etc.....	31,054	79,572	55,819	26,345	73,149	63,555
Total.....	43,527	108,054	85,520	26,345	96,681	76,922
March:						
Federal.....	21,367	36,950	¹ 23,933	(²)	35,452	27,271
State-county, etc.....	48,249	104,139	62,868	35,836	94,043	83,838
Total.....	69,616	141,089	86,801	35,836	129,495	111,109
April:						
Federal.....	22,664	42,074	¹ 39,247	(²)	37,451	28,745
State-county, etc.....	54,569	129,824	70,920	35,911	104,694	102,631
Total.....	77,233	171,898	110,167	35,911	142,145	131,376
May:						
Federal.....	22,004	46,125	¹ 48,099	(²)	41,301	32,061
State-county, etc.....	57,224	150,893	89,512	32,862	128,476	118,591
Total.....	79,228	197,018	137,611	32,862	169,777	150,652
June:						
Federal.....	20,449	51,718	¹ 43,145	(²)	40,678	32,330
State-county, etc.....	53,817	153,855	95,331	44,382	135,683	120,147
Total.....	74,266	205,573	138,476	44,382	176,361	152,477
July:						
Federal.....	19,710	64,406	¹ 50,896	(²)	46,239	38,113
State-county, etc.....	64,162	163,121	111,545	35,854	129,659	124,583
Total.....	83,872	227,527	162,441	35,854	175,898	162,696
August:						
Federal.....	22,742	81,350	¹ 65,000	(²)	57,247	46,859
State-county, etc.....	62,902	183,871	118,584	35,094	143,023	194,738
Total.....	85,644	265,221	183,584	35,094	200,270	241,597
September:						
Federal.....	24,842	84,226	¹ 57,031	(²)	56,552	46,586
State-county, etc.....	64,491	166,360	100,420	33,854	134,451	123,367
Total.....	89,333	250,586	157,451	33,854	191,003	169,953
October:						
Federal.....	26,890	83,928	¹ 69,031	(²)	62,104	51,003
State-county, etc.....	64,052	174,285	104,054	55,949	142,113	130,914
Total.....	90,942	258,213	173,085	55,949	204,217	182,007
November:						
Federal.....	27,397	90,722	¹ 78,139	(²)	67,226	58,027
State-county, etc.....	51,793	139,879	99,098	38,593	127,098	115,591
Total.....	79,190	230,601	177,237	38,593	194,324	173,618

¹ Including renewals.² Not reported.

OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, BY MONTHS, 1917—Concluded.

Month, and kind of office.	Applica- tions from employers.	Persons asked for by em- ployers.	Persons applying for work.		Persons referred to positions.	Positions filled.
			New regis- trations.	Renewals.		
December:						
Federal.....	22,250	82,029	¹ 81,898	(²)	62,840	51,439
State-county, etc.....	42,747	127,994	85,744	35,563	111,154	101,115
Total.....	64,997	210,023	167,642	35,563	173,994	152,554
Total for year:						
Federal.....	256,657	718,012	619,870	(²)	557,320	445,809
State-county, etc.....	635,109	1,652,660	1,056,047	440,715	1,414,806	1,356,671
Grand total.....	891,766	2,370,672	1,675,917	440,715	1,972,126	1,802,570

¹ Including renewals.² Not reported.REPORT OF EMPLOYMENT EXCHANGES IN THE UNITED KINGDOM
(GREAT BRITAIN AND IRELAND) FOR FOUR WEEKS ENDING DE-
CEMBER, 7, 1917.

As reported by the British Labor Gazette of January, 1918, the total number of workpeople remaining on the register of the 385 British employment offices on December 7, 1917, was 100,901, compared with 110,091 on November 9, 1917, and with 101,206 on December 8, 1916. These figures comprise workers in professional, commercial, and clerical, as well as industrial occupations.

The operations of the employment exchanges for the four weeks are summarized as follows:

Item.	Men.	Women.	Boys.	Girls.	Total.
On registers November 9, 1917.....	30,669	63,247	7,621	8,554	110,091
Number of individuals registered during period.....	91,339	124,980	20,728	18,603	255,650
Total.....	122,008	188,227	28,349	27,157	365,741
Registrations during period.....	3,491	3,386	406	378	7,661
On registers December 7, 1917.....	29,282	56,643	7,251	7,725	100,901
Vacancies notified during period.....	88,980	57,201	12,140	10,084	168,405
Vacancies filled during period.....	53,660	49,795	9,962	7,873	121,290
Applicants placed in other districts.....	15,860	9,304	1,647	1,181	27,992

The average daily number of registrations and of vacancies filled for the four weeks ending December 7, 1917, is shown in the following table, together with comparative figures for the periods ending November 9, 1917, and December 8, 1916.

Department.	Average registrations per day in period ending—			Average vacancies filled per day in period ending—		
	Dec. 7, 1917.	Nov. 9, 1917.	Dec. 8, 1916.	Dec. 7, 1917.	Nov. 9, 1917.	Dec. 8, 1916.
Men.....	3,951	4,027	3,430	2,236	2,287	1,943
Women.....	5,349	5,686	5,722	2,075	2,287	2,423
Boys.....	881	935	677	415	434	358
Girls.....	791	837	728	328	353	343
Total.....	10,972	11,485	10,557	5,054	5,361	5,067

EMPLOYMENT IN SELECTED INDUSTRIES IN JANUARY, 1918.

The Bureau of Labor Statistics received and tabulated reports concerning the volume of employment in January, 1918, from representative manufacturing establishments in 13 industries. Comparing the figures for January, 1918, with those from identical establishments for January, 1917, it appears that in 3 industries there was an increase in the number of people employed and in 10 a decrease. Cigar manufacturing shows an increase of 4.9 per cent while automobile manufacturing shows a decrease of 10.4 per cent.

Nine industries show an increase in the total amount of the pay roll for January, 1918, as compared with January, 1917. The greatest increase shown—18.3 per cent—is in woolen. Cotton manufacturing and iron and steel show increases of 17.4 and 15.2 per cent, respectively. A decrease in the total amount of the pay roll of 4 industries is shown. The greatest decrease—11.9 per cent—is in leather manufacturing; while silk shows a decrease of 5.3 per cent.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN JANUARY, 1917, AND JANUARY, 1918.

Industry.	Estab- lish- ments report- ing for Jan- uary both years.	Period of pay roll.	Number on pay roll in January—		Per cent of in- crease (+) or de- crease (-).	Amount of pay roll in January—		Per cent of in- crease (+) or de- crease (-).
			1917	1918		1917	1918	
Boots and shoes.....	71	1 week..	65,546	59,540	- 9.2	981,188	930,681	- 0.1
Cotton manufacturing.....	49	do.....	51,319	50,379	- 1.8	544,578	639,422	+17.4
Cotton finishing.....	17	do.....	14,735	14,356	- 2.6	198,713	221,693	+11.6
Hosiery and underwear.....	54	do.....	29,690	28,740	- 3.2	310,993	328,237	+ 5.5
Woolen.....	47	do.....	45,916	45,841	- .2	614,801	727,272	+18.3
Silk.....	37	2 weeks..	16,021	14,990	- 9.8	382,313	362,024	- 5.3
Men's ready-made clothing..	34	1 week..	23,122	22,839	- 1.2	344,663	385,472	+11.8
Iron and steel.....	114	½ month..	194,922	198,773	+ 2.0	8,191,218	9,435,639	+15.2
Car building and repairing..	26	do.....	33,473	31,532	- 5.8	1,098,101	1,152,979	+ 5.0
Cigar manufacturing.....	62	1 week..	20,363	21,352	+ 4.9	243,832	265,869	+ 9.0
Automobile manufacturing..	45	do.....	110,256	98,816	-10.4	2,183,095	2,122,457	- 2.8
Leather manufacturing.....	30	do.....	15,314	13,947	- 8.9	275,385	242,492	-11.9
Paper manufacturing.....	51	do.....	28,550	28,638	+ .3	429,448	452,163	+ 5.3

The table below shows the number of persons actually working on the last full day of the reported pay period in January, 1917, and January, 1918. The number of establishments reporting on this question is small and this fact should be taken into consideration when studying these figures.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS ON LAST FULL DAY'S OPERATION IN JANUARY, 1917, AND JANUARY, 1918.

Industry.	Establishments reporting for January both years.	Period of pay roll.	Number actually working on last full day of reported pay period in January—		Per cent of increase (+) or decrease (-).
			1917	1918	
Boots and shoes.....	20	1 week....	11,305	9,865	-12.7
Cotton manufacturing.....	29	do.....	24,064	23,695	-1.5
Cotton finishing.....	13	do.....	10,338	10,119	-2.1
Hosiery and underwear.....	10	do.....	9,676	9,202	-4.9
Woolen.....	38	do.....	34,278	34,612	+1.0
Silk.....	20	2 weeks....	11,852	10,726	-9.5
Men's ready-made clothing.....	3	1 week....	3,304	3,881	+17.5
Iron and steel.....	93	½ month....	156,069	153,117	-1.9
Car building and repairing.....	26	do.....	28,954	27,484	-5.1
Cigar manufacturing.....	15	1 week....	4,261	4,351	+2.1
Automobile manufacturing.....	24	do.....	67,070	59,594	-11.1
Leather manufacturing.....	14	do.....	10,420	9,449	-9.3
Paper making.....	13	do.....	9,318	9,846	+5.7

The figures in the table below show that in 2 of the 13 industries there were more persons on the pay roll in January, 1918, than in December, 1917. Boots and shoes shows the larger increase—0.4 per cent—and car building and repairing shows an increase of 0.3 per cent. Decreases are shown in 11 industries. Men's ready-made clothing shows the greatest decrease—4.9 per cent—while woolen shows a decrease of 4.6 per cent.

All of the 13 industries reporting show decreases in the total amount of pay roll when comparing January, 1918, with December, 1917, which is doubtlessly explained by unfavorable weather conditions and a shortage of fuel experienced by many plants during the pay-roll period under consideration. In a few cases the operation of plants was hindered by labor disturbances. Automobile manufacturing and iron and steel show the greatest decreases—12.1 per cent and 11.1 per cent, respectively.

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COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN DECEMBER, 1917, AND JANUARY, 1918.

Industry.	Estab- lish- ments report- ing for De- cem- ber and Janu- ary,	Period of pay roll.	Number on pay roll in—		Per cent of in- crease (+) or de- crease (-).	Amount of pay roll in—		Per cent of in- crease (+) or de- crease (-).
			Decem- ber, 1917.	Janu- ary, 1918.		December, 1917.	January, 1918.	
Boots and shoes.....	69	1 week..	58,269	58,526	+0.4	921,143	916,849	-0.5
Cotton manufacturing.....	54	...do....	56,466	55,980	-.9	724,042	693,462	-4.2
Cotton finishing.....	17	...do....	14,979	14,356	-4.2	244,158	221,693	-9.2
Hosiery and underwear.....	54	...do....	29,059	28,162	-3.1	356,145	321,436	-9.7
Woolen.....	48	...do....	48,366	46,140	-4.6	805,504	732,764	-9.0
Silk.....	36	2 weeks..	14,790	14,480	-2.1	386,033	353,117	-8.5
Men's ready-made clothing..	33	1 week..	17,679	16,810	-4.9	299,373	270,197	-9.7
Iron and steel.....	113	½ month..	198,129	195,768	-1.2	10,442,511	9,282,358	-11.1
Car building and repairing...	21	...do....	26,073	26,158	+.3	1,036,898	924,151	-10.9
Cigar manufacturing.....	60	1 week..	21,181	21,044	-.6	273,199	259,243	-5.1
Automobile manufacturing..	44	...do....	98,820	97,062	-1.8	2,372,006	2,085,576	-12.1
Leather manufacturing.....	30	...do....	14,349	13,947	-2.8	256,937	242,492	-5.6
Paper making.....	49	...do....	27,756	27,312	-1.6	471,314	429,928	-8.8

A comparatively small number of establishments reported as to the number of persons working on the last full day of the reported pay periods. The following table gives in comparable form the figures for December, 1917, and January, 1918. The small number of establishments represented should be noted when using these figures.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS ON LAST FULL DAY'S OPERATION IN DECEMBER, 1917, AND JANUARY, 1918.

Industry.	Estab- lish- ments reporting for December and January.	Period of pay roll.	Number actually working on last full day of reported pay period in—		Per cent of increase (+) or decrease (-).
			December, 1917.	January, 1918.	
Boots and shoes.....	23	1 week....	11,447	11,321	-1.1
Cotton manufacturing.....	34	...do....	27,810	27,624	-.7
Cotton finishing.....	13	...do....	10,676	10,119	-5.2
Hosiery and underwear.....	16	...do....	11,834	11,216	-5.2
Woolen.....	37	...do....	36,764	34,300	-6.7
Silk.....	19	2 weeks..	10,273	9,937	-3.3
Men's ready-made clothing..	3	1 week....	3,555	3,881	+9.2
Iron and steel.....	91	½ month..	151,171	145,295	-3.9
Car building and repairing...	21	...do....	23,309	23,041	-1.1
Cigar manufacturing.....	20	1 week....	4,595	4,525	-1.5
Automobile manufacturing..	25	...do....	60,995	59,658	-2.2
Leather manufacturing.....	14	...do....	8,750	8,568	-2.1
Paper making.....	14	...do....	9,641	9,442	-2.1

CHANGES IN WAGE RATES.

In 10 of the 13 industries there were establishments reporting increases in wage rates during the period December 15, 1917, to January 15, 1918, and in 3 industries no establishment reported a change. A number of firms did not answer the inquiry relating to

the wage-rate changes, but in such cases it is probably safe to assume that no changes were made.

Boots and shoes: The report from 1 plant showed an increase of 5 per cent to all its employees.

Cotton manufacturing: One plant reported an increase of 10 per cent to all hands except overseers.

Cotton finishing: One establishment reported an increase of 10 per cent but did not report the number of workers affected.

Hosiery and underwear: Reports from four plants showed changes in the wage rates. One plant reported a 10 per cent increase to its entire force. One plant reported an increase of 8 per cent to 90 per cent of its employees. One plant reported a "general" increase of 15 per cent, and another plant an increase of 16 $\frac{3}{4}$ per cent, but gave no data as to the number of employees affected.

Silk: One plant reported an increase of 10 per cent affecting its force in general, while a second reported a bonus of 10 per cent to all its force.

Men's ready-made clothing: One plant reported a 5 per cent increase in two departments.

Iron and steel: Reports from 24 plants show an increase in the wage rates. One plant reported an increase of 5 per cent to about a third of its employees. One plant reported a 4 per cent increase to about 60 per cent of its force. One plant granted an increase of 3 per cent to 40 per cent of its employees, and another plant reported a premium of slightly more than 5 per cent of total pay roll. Four plants granted an increase of 0.0188 per cent to numbers of their employees ranging from 50.7 per cent to 54.6 per cent, and 4 plants granted a 0.0254 per cent increase to 34.5 per cent, 36.2 per cent, 38.2 per cent, and 38.5 per cent, respectively. One plant reported an average increase of 5 per cent, while in another plant there was a 5 per cent increase to all employees. Reports from 5 plants showed an average increase of 5 $\frac{1}{2}$ per cent; 1 plant an average of 8 per cent increase, and 2 an average of 10 per cent increase. One plant reported an increase but gave no data.

Car building and repairing: One plant reported an increase of 20 per cent to 6 $\frac{1}{2}$ per cent of its force and an increase of 4 cents per hour to laborers, while a second plant reported an increase of 0.02 per cent, but gave no statement as to the number affected.

Automobile manufacturing: Reports from 4 establishments showed increases in the wage rates. One plant reported an increase of approximately 20 per cent to slightly more than 6 per cent of the force. One plant reported an increase of 30 cents and under per hour to 10 per cent of its employees; between 30 cents and 40 cents per hour to 7 per cent, and over 40 cents per hour to 4 per cent of

its employees. One plant granted an increase of 10 per cent to 8 per cent of its force.

Leather manufacturing: One plant reported a 10 per cent increase giving no statement as to the number affected, and another plant reported an increase of 15 cents per day per man on entire force.

VOLUME OF EMPLOYMENT IN THE UNITED KINGDOM (GREAT BRITAIN AND IRELAND) IN DECEMBER, 1917.

The table on page 159 pertaining to the condition of employment in Great Britain and Ireland was compiled from a report published in the British Labor Gazette of January, 1918.

No important changes relating to the number of employees in December, 1917 as compared with November, 1917, are shown.

Dressmaking and millinery show a decrease of 2.2 per cent; dock and riverside labor, a decrease of 3.7 per cent; seamen, a decrease of 4.4 per cent, while no other trade shows a change of as much as 2 per cent. In comparing December, 1917, with December, 1916, on this point more important changes are seen. The cotton trade shows a decrease of 11.7 per cent, dock and riverside labor a decrease of 28.3 per cent; seamen, a decrease of 18.1 per cent; food preparation, a decrease of 14.9 per cent, while all other trades show a change of less than 10 per cent each.

Earnings of employees show few important changes in December as compared with November. The cotton trade shows an increase of 11.4 per cent; hosiery, 6.6 per cent; bleaching, printing, dyeing, and finishing, 9.0 per cent, while the other trades show increases ranging below these.

In comparing December, 1917, with December, 1916, on the question of earnings of employees, more important changes are shown, all of which are increases. The tailoring trades show an increase of 41.8 per cent; linen, an increase of 40.8 per cent; brick, an increase of 29.1 per cent; jute, an increase of 24.5 per cent. Twelve trades show increases ranging from 12.8 per cent to 23.6 per cent, while the other trades reporting increases of earnings of employees show percentages ranging below 10 per cent.

VOLUME OF EMPLOYMENT IN THE UNITED KINGDOM (GREAT BRITAIN AND IRELAND) IN DECEMBER, 1917, AS COMPARED WITH NOVEMBER, 1917, AND DECEMBER, 1916.

[Compiled from figures in the Labor Gazette (London), January, 1918.]

Industries, and basis of comparison.	Per cent of increase (+) or decrease (—) in December, 1917, as compared with—		Industries, and basis of comparison.	Per cent of increase (+) or decrease (—) in December, 1917, as compared with—	
	November, 1917.	December, 1916.		November, 1917.	December, 1916.
Coal mining: Average number of days worked.....	— 0.2	— 1.1	Shirt and collar trade:		
Iron mining: Average number of days worked.....	— .3	+ 2.1	Number of employees.....	+0.3	— 6.7
Quarrying: Number of employees.....	— 1.0	— 9.5	Earnings of employees.....	+ .6	+14.0
Pig iron: Number of furnaces in blast.....	— 1.3	+ 2.1	Other clothing trades:		
Iron and steel works:			Dressmaking and millinery—		
Number of employees.....	+ .5	+ 6.7	Number of employees.....	—2.2	— 8.1
Number of shifts worked.....	+ .4	+ 6.7	Wholesale mantle, costume, blouse, etc.—		
Engineering trades: Number of employees ¹	+ .03	— .31	Number of employees—		
Shipbuilding trades: Number of employees ¹	(²)	— .02	London.....	—1.7	— 3.5
Tin plate, steel, and galvanized sheet trades: Number of mills in operation.....	+ 2.3	+ 1.0	Number of employees—		
Cotton trade:			Manchester.....	—1.1	— 2.5
Number of employees.....	— .9	—11.7	Number of employees—		
Earnings of employees.....	+11.4	+12.8	Glasgow.....	—1.8	— 2.1
Woolen trade:			Corset trade—Number of employees.....	— .8	— 8.7
Number of employees.....	+ .5	— 4.0	Building and construction of works: Number of employees ¹	— .1	+ .3
Earnings of employees.....	+ 2.5	+18.6	Sawmilling and machining:		
Worsted trade:			Number of employees ¹	(²)	— .1
Number of employees.....	— .2	— 1.8	Brick trade:		
Earnings of employees.....	+ .3	+21.7	Number of employees.....	— .6	+ 1.6
Hosiery trade:			Earnings of employees.....	+ .6	+29.1
Number of employees.....	— .3	— 3.5	Cement trade:		
Earnings of employees.....	+ 6.6	+23.6	Number of employees.....	+ .2	— 6.7
Jute trade:			Earnings of employees.....	+1.5	+16.5
Number of employees.....	— 1.2	— .3	Printing, bookbinding, and paper trades:		
Earnings of employees.....	+ .8	+24.5	Printing trades—		
Linen trade:			Number of employees reported by trade-unions ¹	— .3	(²)
Number of employees.....	+ .5	+ 4.9	Number of employees reported by employers.....	+1.1	— 7.3
Earnings of employees.....	+ 4.3	+40.8	Earnings of employees reported by employers.....	+3.8	+ 9.1
Silk trade:			Bookbinding trades—		
Number of employees.....	— .4	— 1.8	Number of employees reported by trade-unions ¹	+ .1	+ .2
Earnings of employees.....	+ 3.3	+23.4	Number of employees reported by employers.....	+ .1	— 4.4
Carpet trade:			Earnings of employees reported by employers.....	+2.5	+19.4
Number of employees.....	— 1.0	+ 1.7	Paper trades: Number of employees.....	+ .2	— 2.1
Earnings of employees.....	+ 4.7	+22.9	Pottery trades:		
Lace trade:			Number of employees.....	+1.4	— 1.5
Number of employees.....	— .5	— 5.6	Earnings of employees.....	+4.9	+20.4
Earnings of employees.....	+ 3.2	+ 9.8	Glass trades:		
Bleaching, printing, dyeing, and finishing:			Number of employees.....	+ .6	+ .3
Number of employees.....	— .2	— 4.1	Earnings of employees.....	+6.4	+17.3
Earnings of employees.....	+ 9.0	+23.3	Food preparation trades:		
Boot and shoe trade:			Number of employees.....	—1.3	—14.9
Number of employees.....	— .4	— 6.4	Earnings of employees.....	— .7	+ 7.3
Earnings of employees.....	+ 2.8	+ 9.7	Dock and riverside labor: Number of employees.....	—3.7	—28.3
Leather trades: Number of employees.....	— .5	+ .4	Seamen: Number of employees.....	—4.4	—18.1
Tailoring trades:					
Number of employees.....	— .5	+ 3.2			
Earnings of employees.....	+ 2.7	+41.8			

¹ Based on unemployment returns.

² No change.

The table following shows, by occupational groups, the number of individuals registered, the vacancies notified, and the vacancies filled, indicating the extent of unemployment in Great Britain during the four weeks ending December 7, 1917. The totals for this period are also compared with the totals for the four weeks ending November 9, 1917.

INDIVIDUALS REGISTERED, VACANCIES NOTIFIED, AND VACANCIES FILLED IN
THE FOUR WEEKS ENDING DEC. 7, 1917.

A.—*Insured trades.*

Occupation group. ¹	Adults.						Juveniles.			
	Individuals registered during period.		Vacancies notified during period.		Vacancies filled during period.		Vacancies notified during period.		Vacancies filled during period.	
	Men.	Wom-en.	Men.	Wom-en.	Men.	Wom-en.	Boys.	Girls.	Boys.	Girls.
Building:										
Carpenters, joiners, etc.	2,980	275	5,707	80	2,005	57	51	3	42	3
Bricklayers.	1,669	.....	3,024	1	1,239	1	.....	.....	1	.....
Masons.	355	2	117	1	35	1	3	.....	2	.....
Plasterers.	536	1	236	.....	134	.....	1	.....	3	.....
Painters, decorators, etc.	2,697	323	1,090	243	885	244	32	27	21	17
Plumbers, glaziers.	459	3	579	21	294	19	37	.....	22	.....
Other skilled occupations.	82	3	179	3	25	2	14	.....	11	.....
Laborers.	6,139	194	6,145	289	4,136	247	133	9	116	6
Works of construction.	7,885	22	11,133	8	7,307	3	25	4	20	4
Sawmilling.	952	1,395	893	1,175	519	1,139	204	113	170	102
Shipbuilding:										
Platers, riveters.	1,180	20	1,147	38	785	37	28	.....	35	.....
Shipwrights.	369	.....	533	1	336	1	14	.....	19	.....
Laborers.	1,957	326	2,513	122	1,480	109	112	5	98	1
Engineering:										
Molders.	925	125	1,015	87	543	77	83	33	60	34
Smiths.	605	70	583	67	324	64	32	5	16	5
Erectors, fitters, turners.	7,689	1,827	7,515	830	5,816	695	799	49	719	44
Metal machinists.	2,771	8,018	1,868	6,371	1,437	6,211	588	253	518	224
Wiremen.	616	75	736	73	357	49	67	2	51	4
Other skilled occupations.	2,776	6,053	2,395	3,180	1,462	2,917	271	132	245	119
Laborers.	9,399	2,341	8,166	2,856	7,071	2,694	460	81	410	72
Construction of vehicles.	778	333	502	331	226	333	42	6	34	4
Cabinetmaking, etc.	246	120	170	62	126	41	40	13	17	14
Miscellaneous metal trades.	1,631	2,013	2,090	1,050	1,305	968	284	283	268	275
Precious metals, etc.	104	222	124	112	70	97	26	56	27	53
Bricks and cements.	53	83	287	121	68	97	13	4	14	4
Chemicals, etc.	688	742	1,068	564	824	527	122	102	111	98
Rubber and waterproof goods.	186	914	182	570	160	593	27	41	24	28
Ammunition and explosives.	3,335	29,320	2,733	6,654	2,451	8,044	341	342	324	299
Leather, boots, and shoes.	208	254	222	146	81	100	39	57	31	41
Leather, excluding boots and shoes.	260	486	151	228	88	144	43	73	36	63
Total.	59,528	55,561	63,103	25,284	41,589	25,511	3,931	1,693	3,465	1,514
Total, male and female. .	115,089		88,387		67,100		5,624		4,979	
4 weeks ending Nov. 9, 1917.	115,297		93,369		71,243		6,213		5,400	

¹ Occupations are grouped according to the industry with which they are mainly connected, and applicants are registered according to the work desired by them.

INDIVIDUALS REGISTERED, VACANCIES NOTIFIED, AND VACANCIES FILLED IN
THE FOUR WEEKS ENDING DEC. 7, 1917—Concluded.*B.—Uninsured trades.*

Occupation group. ¹	Adults.						Juveniles.			
	Individuals registered during period.		Vacancies notified during period.		Vacancies filled during period.		Vacancies notified during period.		Vacancies filled during period.	
	Men.	Women.	Men.	Women.	Men.	Women.	Boys.	Girls.	Boys.	Girls.
Mining and quarrying.....	629	33	2,471	15	245	15	48	8	25	6
Textile:										
Cotton.....	346	845	327	650	155	393	130	109	71	93
Wool and worsted.....	145	270	245	191	99	134	47	52	29	52
Silk, flax, linen, etc.....	233	1,707	378	887	118	704	142	377	121	185
Dress:										
Tailors and tailoresses.....	132	711	92	543	22	358	25	128	23	109
Dressmakers and milliners.....		470		181		126		186		134
Seamstresses.....		952		538		440		151		141
Others.....	74	1,159	36	374	11	358	39	81	22	52
Conveyance of men, goods, etc.:										
On railways.....	183	255	500	254	330	231	116	4	92	3
On roads, seas, rivers, etc..	8,851	2,674	5,847	1,049	4,089	915	2,307	1,199	1,683	876
Agriculture.....	695	942	682	903	220	730	111	34	62	20
Paper, prints, books, and stationery.....	144	665	224	450	71	375	213	443	164	356
Wood, furniture, fittings, etc..	26	68	33	38	7	35	115	62	106	56
Pottery and glass.....	87	242	162	119	66	53	102	66	80	34
Food, tobacco, drink, and lodging:										
Bread, biscuit, etc., makers	129	302	161	366	28	317	62	58	38	48
Waiters.....	104	1,648	55	836	38	681	9	41	8	32
Others (jam, cocoa, tobacco, etc.).....	111	1,023	244	278	122	744	86	240	60	202
Brushes, brooms, etc.....	7	31	17	28	8	19	10	18	7	19
Gas, water, electrical supply, and sanitary service.....	103	40	889	92	534	93	20		17	
Commercial and clerical.....	3,701	9,829	1,623	3,536	1,094	2,860	861	1,228	653	1,082
Domestic:										
Laundry and washing service.....		944		1,152		884		110		69
Private indoor servants....		1,782		2,023		618		259		124
Other indoor servants.....	1,426	7,560	1,088	6,045	596	4,652	334	288	252	182
Charwomen, day girls, day servants.....		11,134		7,311		5,690		1,169		687
Others.....		324		205		135		25		17
General laborers.....	11,262	9,567	3,942	972	3,176	961	658	434	562	409
Shop assistants.....	467	3,020	230	650	67	459	139	615	85	481
Government, defense and professional.....	1,580	5,076	940	1,368	563	1,073	309	286	245	255
All other.....	1,376	6,116	691	263	421	231	2,316	720	2,092	635
Total.....	31,811	69,419	20,877	31,917	12,071	24,284	8,209	8,391	6,497	6,359
Total, males and females.....	101,230		52,794		36,355		16,600		12,856	
4 weeks ending Nov. 9, 1917.	110,447		56,096		38,526		17,458		13,494	
Casual employment (men only)	92				1,665					

¹ Occupations are grouped according to the industry with which they are mainly connected and applicants are registered according to the work desired by them.

This table shows that during the period, in the insured trades, 115,089 adults registered for work—59,528 men and 55,561 women. There were 94,011 vacancies reported—63,103 men, 25,284 women, 3,931 boys, and 1,693 girls. The number of positions filled was 72,079—41,589 men, 25,511 women, 3,465 boys, and 1,514 girls. The occupation groups in which the largest numbers of positions were

filled by adults were: Ammunition and explosives, 10,495; laborers—engineering, 9,765; metal machinists, 7,648; works of construction, 7,310; erectors, fitters, turners—engineering, 6,511; laborers—building, 4,383; and other skilled occupations—engineering, 4,379.

In the uninsured trades there were 101,230 registrations—31,811 men and 69,419 women. The number of vacancies reported was 69,394—20,877 men, 31,917 women, 8,209 boys, and 8,391 girls. The total number of positions filled was 49,211—12,071 men, 24,284 women, 6,497 boys, and 6,359 girls. The occupation groups in the uninsured trades, in which the largest numbers of positions were filled by adults were: Domestic service, 12,575; conveyance of men, goods, etc., 5,565; general laborers, 4,137; commercial and clerical, 3,954.

The total number of positions filled by adults in both the insured and uninsured trades during the four weeks ending December, 7, 1917, as compared with the preceding four weeks, shows a decrease of 5.8 per cent. The decrease in the number of positions filled by men was 2.2 per cent; by women 9.3 per cent. Much the largest number of women were employed in the manufacture of ammunition and explosives and in domestic service.

No comparison can be made of the number of registrations in the employment exchanges of Great Britain with the number of applications for work reported by the employment offices of the United States, owing to the difference in method of registering applicants. It is possible, however, to make a comparison of positions filled by the offices in the two countries. The figures show the following result:

	Number of offices.	Positions filled.		
		Total.	Average per day.	Average per day each office.
Great Britain (4 weeks ending Dec. 7, 1917)	385	121,290	5,054	13.1
United States (Nov., 1917)	161	122,610	4,904	30.5

The above figures are significant in view of the fact that a very large percentage, if not practically all, of the employment-office work of Great Britain is done through the free employment exchanges, while in the United States but a very small proportion of the placements is made through the public employment offices, the much greater proportion being handled by the private employment agencies.

WORK OF CALIFORNIA PUBLIC EMPLOYMENT BUREAUS DURING 1917.¹

For the year ending December 31, 1917, the public employment bureaus of the State of California successfully filled 92,959 positions, according to the report of John P. McLaughlin, commissioner of labor. This is an increase of 100 per cent over the 46,442 placements of 1916, which was the first year of their existence. If we include the additional 45,044 placements in Los Angeles city, the public bureaus of the State have 138,003 placements to their credit for the year just ended.

San Francisco placed 39,795, of whom 3,375 were women and 36,420 were men; 15,557 were sent outside the city and 24,238 went to work in the city proper. Of the women 1,509 were placed in hotels, apartment houses, and restaurants, 998 in private homes, 254 in factories, and 228 in clerical positions. Hotels and restaurants took 8,759 of the men, followed by transportation with 5,615, lumber and timber products with 3,231, agriculture with 1,859, and factories with 1,633.

The Oakland office placed 11,459 men and 2,755 women. Of the women 1,725 went into private homes and 636 into hotels, apartment houses, and restaurants. These same industries took 1,768 men, followed by transportation with 1,289 and agriculture with 587. Oakland, Alameda and Berkeley accounted for 12,291 of the total, the balance of 1,923 going to outside points.

Sacramento's total of 11,313 comprised 10,879 men and 434 women. Of the women 291 went into private homes and 99 into hotels, etc. Agriculture accounted for 3,253 of the men, followed by the lumber industry with 1,557 and transportation with 1,505. Of the total positions furnished 3,079 were in Sacramento and 8,234 were outside the city.

The Fresno office was in operation only a little over four months and placed 6,999 persons, of which number the women constituted 289. Fresno city took 1,895 and the surrounding country 5,104. Agriculture took 171 of the women, hotels 67, and private homes 47. Of the 6,710 men, 3,307 were placed in agriculture, followed by the lumber industry with 668 and building construction with 623.

The State placed 20,638 in the eight southern counties outside of Los Angeles city, and 45,044 more were placed by the city of Los Angeles, with whom the State is cooperating. Of this number 4,050 were placed in agricultural pursuits.

Of the immense total of over 138,003 positions mentioned above, 13,425, or less than 10 per cent, were placed in agricultural pursuits,

¹ This advance summary of the activities of the California public employment bureaus, was furnished the Bureau of Labor Statistics by C. B. Sexton, superintendent of bureaus, 933 Mission Street, San Francisco.

where the demand for labor has been greatest. The reason for this is largely because our bureaus have been situated too far from the farming communities to be of much relief to them. By cities, the percentages agricultural are of total placements run as follows: Oakland 4 per cent; San Francisco 5 per cent; Los Angeles 6 per cent; Sacramento 30 per cent, and Fresno 50 per cent. In other words, the nearer we get to the farming community the more assistance we are to them. The need of more offices was repeatedly called attention to, and at the last session of the legislature the labor commissioner asked for an appropriation of \$50,000 yearly for the purpose of opening some new branches, but his recommendation was not heeded and a merely nominal increase was given the department. As soon as the extra money was available Gov. Stephens immediately authorized the opening of the Fresno office, which was a great factor in supplying help to harvest the largest raisin-grape crop on record.

Placements in Sacramento and Fresno cost about 40 cents per person, as against an average of \$1.80 charged by private fee agencies. Offices at such centers as Stockton, San Jose, and other places in the farming communities of the State, would go a long way toward getting help to put this year's crops in the barns and warehouses. Such offices could be conducted for seven months of the year at a cost of not over \$3,000 each, including equipment.

It might be pertinent at this time to once more draw attention to the need of a reduced rate for farm workers who have to travel any appreciable distance. The need will be more urgent than ever this summer, and the chance of the request being granted should be greater on account of the taking over of the railroads by the Federal Government. The farmers, when labor is most needed, have always to compete with employers who offer free or advanced fares. Of the 8,589 men furnished to the transportation companies, all were given free fare, and the fare was advanced to practically all of the 6,099 men taken by the lumber companies, besides hundreds of men furnished to large contractors. Even with an equal offer in wages the farmer is practically in a losing position as against the railroad companies, lumber interests, and contractors in such cases.

EMPLOYMENT IN THE STATE OF NEW YORK.

The following statement regarding the labor market in New York in January is made by the Bureau of Employment of the New York State Industrial Commission under date of February 1, 1918:

The statistics of all the employment offices in the State Bureau of Employment for the past month show that there has been a very slight increase in the work during

the month of January over that of December, 1917. It will be noted that the work of the offices in all lines almost exactly parallels the work done one year ago in the month of January, 1917. During the past month all the registration offices have kept account of the number of people who come to the offices seeking work. The total is a little over 30,000. The 8,000 registrations represent the workers actually handled and sent to positions. For the other 20,000 or more the offices did not have positions, and on account of limited clerical force they were not registered.

There is undoubtedly a considerable amount of unemployment in the State of New York as a whole, due to a number of causes. Some plants are finding difficulty in obtaining raw material, others in obtaining fuel. There has been a decreased demand on the part of the public for articles classed as luxuries. This automatically necessitates a reduction in the force of many plants, and in a few cases to an entire shutdown. It might have been expected that this supply of labor would be absorbed in the various lines of war work. But owing to the fact that many of the war contractors have not yet reached their maximum capacity this supply of labor has not been taken on.

Reports indicate that the five-day closing order did not materially increase the present very large "turnover." This "turnover" still continues and is due to the restlessness occasioned by the reports of labor shortage and high wages, which reports still persist. Alleged shortage often means that certain industries are still calling for highly skilled men in various occupations. This once more strongly emphasizes the necessity for some rational and efficient method of training the less skilled workers for the more highly technical needs.

In spite of the adverse weather the subject of farm help is demanding attention. The State Food Commission should have, just now, some specially organized machinery for the handling of farm help. The work should be carried on through the State Employment Bureau, but will necessitate a very large temporary increase in the present staff of workers. The prospect of securing farm hands seems much brighter than it did a few weeks ago. Among the men laid off for all sorts of reasons are found many who have formerly done farm work, and who now feel that industrial conditions are such as to warrant them in accepting farm wages and the surety of employment. Many have discovered, after spending much time and carfare, that the reported enormous earnings in various lines are really only made by the exceptional few. This supply of farm help just now available is one calling for the quick establishment of machinery for handling it. These men should be registered at once and brought in touch with farmers needing help. A delay of a few weeks will mean that they will probably wander into the fields of industry again opening up as the result of an increased supply of fuel and materials.

The juvenile placement departments are now organized in five offices of the bureau. During the first few weeks the staffs of these departments have mainly devoted their time to getting thoroughly acquainted with the industries and openings in their different communities. They have, however, already commenced their actual work. As has been stated before, these departments are trying to avoid making a record of placements. Reports received indicate that they are spending more time in getting children to return to school and in giving vocational advice than in making actual placements. There is a strong call for this intensive work of pointing out to young people the need of further schooling or the need of taking up special lines of training.

Regarding manufacturing activity in New York the Industrial Commission states that in December, 1917, as compared with the preceding month there were increases of almost one-half per cent in both the number of employees and the amount of wages paid, and a

new high record for wages was established. As compared with the same month in 1916 there was an almost imperceptible decrease in the number of employees in December, 1917, and a 14 per cent increase in the pay roll. A comparison of December, 1917, with December, 1915, shows increases of 13 per cent in the number of workers and 48 per cent in the total amount of wages paid to them. Since December, 1914, there was in December, 1917, an increase of 32 per cent in the number of employees and 87 per cent in the volume of wages. The leather, the metals and machinery, and the textiles groups showed the greatest increases in activity in December as compared with November.

OPERATIONS OF THE LABOR EXCHANGE SYSTEM OF NEW SOUTH WALES,
1916-17.

In the December issue of the New South Wales Industrial Gazette (pp. 776 to 786) there is a report of the operations of the labor exchange system for the financial year ending June 30, 1917, in which the record of the year's activities is first set forth, followed by a statement of the amalgamation of the State labor branch and the central labor exchange as the result of the "far-reaching plan of reorganization in this section of departmental work," which was found to be essential to meet "an industrial problem of serious dimensions" brought about by the suspension of great public works, and the partial collapse of the building industry and corresponding war effects upon a great range of individual enterprises. Mention is also made of the establishment of a daily news list, showing the work available, and the labor offerings at and through the exchanges for the information of employers and employees, respectively, under the title of the "Labor Exchange Daily Supplement to the New South Wales Industrial Gazette."

While no statistics are given showing the occupations included in the placements, it is stated that the labor exchanges applied themselves with great zest to the satisfaction of farmers' needs in connection with the 1916 harvest, and it may be assumed that a large proportion of the male labor was sent to the farms to work. The persons placed in employment by the State labor branch and the State labor exchange numbered 14,944, of whom the women's employment agency placed 3,578 (23.9 per cent), although it is not stated that women were not placed by other agencies. The total number placed was 69.2 per cent of the number of applications received from employers and 57.4 per cent of the number of applications received from employees.

A practice is made of assisting workers to the place of their employment by advances in varying amounts for traveling expenses, and during the year 4,236, or 27 per cent of those placed, availed themselves of this privilege, the total amount of the advances being £4,897 4s. 3d. (\$23,832.28), representing £1 3s. 1d. (\$5.62) per person assisted. The arrears of repayments due up to the end of the year amounted to £320 0s. 8d. (\$1,557.44), or 1s. 6d. (36.5 cents) per person. These advances have been limited to £2 (\$9.73) per person, but during the year direction was given to labor exchanges to extend this limit if necessary in order to facilitate the transfer of employees' families to the location in which work was available. Furthermore, exchanges were permitted to make an advance not to exceed £1 (\$4.87) per person, in addition to the amount advanced for fares, to meet expenses during that part of the journey which remains after an applicant reaches a railroad terminus or a railroad station or port of disembarkation nearest to his place of employment.

The report notes several matters of policy which were determined during the year, which may be suggested briefly.

The exchanges are at liberty to treat applications for employment from residents outside the State in the same manner as they treat applications for employment from residents of New South Wales, "provided that in the first place the persons to be assisted were white Australians or white New Zealanders, and in the second place that applicants for employment within the State should be able to supply a certificate indicating that the condition of their health was not likely to be a menace to the health of the people of this State, or to leave them dependent upon local charity."

Upon the question of registration a direction was issued during the year that every applicant for employment registered with the exchanges must be treated as a person available for employment unless his record with the exchange discloses otherwise at any future time.

Exchange officers were directed that they should take pains to see that the employees sent to employment were capable of satisfactorily discharging the duties which their employment would require from them, the feeling being that no system, however theoretically perfect, could succeed if the practical value of the person sent to employment was not responsibly ascertained and to some extent guaranteed.

The question of giving preference of employment to married men was determined by the minister of labor to be an unwise procedure, the view being expressed that those who preferred the request seemed to overlook the fact that the departmental labor exchanges

selected labor only in a secondary sense; that the character of labor required by employers who resorted to the exchanges was generally indicated with some particularity; that skilled workers of almost any class in mechanical trades were then difficult to find; and that the claims of unionists to preference of employment could not well be resisted by employers or the labor exchanges.

It is part of the plan of the labor-exchange system to preserve a record of the character and industrial ability of each person assisted. The purpose of the record is to make it possible for the exchanges to give assurances, based on the individual history preserved by them, as to the probity and efficiency of the persons sent by them to employment.

A question raised as to whether the exchanges should be made available to men who from their age, physical ability, and other conditions were deemed to be persons who should volunteer for military service was considered by the minister, who issued an instruction that exchange services should not be refused to any registered applicant for employment, subject always to the continuance of the departmental policy by which the patriotic obligations of persons who might be expected to enlist were to be brought vividly to their minds.

LABOR ORGANIZATIONS.

TWENTY-FIRST ANNUAL CONVENTION OF THE INTERNATIONAL SEAMEN'S UNION OF AMERICA.

The keynote of the Twenty-first Annual Convention of the International Seamen's Union of America, held at Buffalo, December 3 to 12, 1917, inclusive, was sounded in the call "to all seafaring men ashore or afloat," embodied in resolution No. 20 adopted unanimously by the convention:

The Nation that proclaimed your freedom now needs your services. America is at war. Our troops are being transported over the seas. Munitions and supplies are being shipped in ever increasing quantities to our armies in Europe. The bases are the ports of America. The battle fields are in Europe. The sea intervenes. Over it the men of the sea must sail the supply ships. A great emergency fleet is now being built. Thousands of skilled seamen, seafaring men of all capacities, who left the sea in years gone by as a protest against the serfdom from which no flag then offered relief, have now an opportunity to return to their former calling, sail as free men, and serve our country.

Your old shipmates—men who remained with the ship to win the new status for our craft—now call upon you to again stand by for duty. Your help is needed to prove that no enemy on the seas can stop the ships of the Nation whose seamen bear the responsibility of liberty.

America has the right, a far greater right than any other nation, to call upon the seamen of all the world for service. By responding to this call now you can demonstrate your practical appreciation of freedom won.

* * * We must be prepared, * * * to man the great new merchant fleet now building. Men must be ready and in training. It is in recognition of this need that we, as a duty to the Nation, submit this call to all seamen.

The Seamen's Union, which operates in three great divisions, the Pacific, Atlantic, and Lake districts, comprises a membership of about 38,000. In his report, the secretary treasurer points out the great gain in membership, increasing financial strength, marked increase in wages, and general improvement of working conditions. The report points particularly to the Eastern and Gulf Sailors' Association, which has added nearly 2,000 to its membership; to the Marine, Firemen, Oilers, and Water Tenders' Union of the Atlantic and the Gulf, which has "made greater gains during the past year than any other district union in the International," and to the Marine Cooks and Stewards' Association of the Atlantic, which has obtained wage increases ranging from 25 per cent for the most skilled men to 100 per cent for men of lesser experience, with an additional bonus of 50 per cent for men going into the war zone. Material improve-

ments in working conditions, overtime pay, and increases in wages are reported for the Maritime Union of the Pacific District, and it is further stated that the "progress made in organizing and improving conditions of men in the various fishing industries of the Pacific coast exceeded our expectations." It is reported that the Lake Seamen's Union has, "through skillful maneuvering" been able to "establish a wage scale far in excess of that contemplated by the Lake shipowners."

The year closed marked the inauguration of a number of important agreements between the union, shipowners, and the United States Shipping Board. The Atlantic agreement of May, 1917, entered into between the Union of Sailors, Firemen, and Cooks of the Atlantic District, shipowners of the Atlantic coast, and the United States Shipping Board, and approved by the Secretaries of Labor and of Commerce, is considered by the union to be the most important feature of the progress made by the seamen of America during the past year. This agreement was finally ratified on August 8, 1917, is as follows:

Substantially all the steamship lines will agree to pay the following wages: Sailors and firemen, \$60 per month; coal passers, \$50 per month; oilers and water tenders, \$65 per month; boatswains, \$70 per month; carpenters, \$75 per month; overtime pay for cargo work, 50 cents; for ship work, 40 cents per hour. Bonus going to the war zone 50 per cent of the wages, wages and bonus to continue until crew arrived back in the United States; \$100 compensation for loss of effects caused by war conditions. The scale of wages and bonus for cooks and stewards at present in force be maintained and continued during the continuance of this agreement.

That a certain number of boys determined by the number of men carried are to be employed in addition to the usual crew; that a number of ordinary seamen will be employed in proportion to the able seamen carried. Taken as an instance, a vessel now carrying 8 men on deck, will carry 6 able seamen, 2 ordinary seamen, and 2 boys, such boys and ordinary seamen to have ample opportunity to learn the work usually demanded of able seamen.

That the representatives of the organized seamen shall have access to and be permitted on docks and vessels during reasonable hours.

The representatives of the seamen tentatively agreed to join with the shipowners in an appeal to seamen now employed on shore to come back to the sea.

That the bonus and other conditions arising from the War shall terminate with the War, and that the wages set shall remain for one year to the end that wages be stabilized, and that the new men now on shore may be induced to return to the sea.

That the seamen will use earnest efforts in cooperation with the officers to teach seamanship to the boys and ordinary seamen.

The secretary treasurer recounts the plans of the Lake Seamen's Union during the past season, which included a movement for a wage increase and the abolition of the discharge-book feature of the employment system of the Lake Carriers' Association. The report states that because of the unwillingness of the Lake Carriers' Association to give up this feature of its employment system, the Lake Sea-

men's Union called a strike, which, while not actually carried out, led to a series of conferences between representatives of the seamen, the Lake Carriers' Association, and the United States Shipping Board, resulting in the establishment of a minimum-wage schedule for seamen on the Great Lakes, effective from October 1, 1917, to the close of the season, and brought about the abolition of the continuous-discharge-book system by the United States Shipping Board.

The president's report deals chiefly with his efforts to "watch legislation and general developments, * * * to defend such part of the Seamen's Act as might be attacked in the courts, to assist foreign seamen as well as members of our own organization in obtaining the benefit of the act."

Among the resolutions adopted by the convention, the subject matter of a few of the more important ones may be mentioned:

Resolution No. 2 favors a conference of all the seamen of the world, immediately upon the termination of the War, for the purpose of initiating measures deemed essential for the elimination of dissension and hatred among seamen.

Resolution No. 6 urges the Department of Commerce to have a ruling amended which makes possible the working of the crew in the engine and fire room for eight consecutive hours, which is believed to be in violation of the spirit and intention of the Seamen's Act.

Resolution No. 7 instructs the legislative committee of the union to further the passage of a bill pending in Congress designed to increase the salaries of employees of the Steamboat Inspection Service.

Resolution No. 9 points out that because of the hazardous employment in which seamen are engaged, a reduction in their hours of labor is fully warranted and favors the establishment of an eight-hour workday for all seamen.

Resolution No. 16 asks for the enactment of a law by Congress which would make it compulsory that all lake ships carry an emergency nonperishable food supply for emergency use only.

Resolution No. 19 requests that a system of training be started immediately for merchant seamen on a large scale, and that the recruiting service of the United States Shipping Board have absolute control over the recruiting and training of such seamen. As a means of more effectively carrying out this policy, a series of recommendations accompany this resolution urged for adoption by the United States Shipping Board.

The committee on legislation urges the enactment of a general Federal compensation law for all seamen, in view of the fact that there is no general law in the United States providing definite compensation for injuries received by seamen on board the vessel or in the service of the vessel.

The next convention will meet at Galveston, Tex., on the third Monday in January, 1919.

INTERNATIONAL TRADE-UNION CONFERENCE IN BERNE, OCTOBER 1 TO 4, 1917.¹

In accordance with the resolution of the preliminary conference in Stockholm on June 8, 1917, the conference of the International Federation of Trade-unions was held in Berne, Switzerland, on October 1 to 4. Originally it was proposed that the conference should meet on September 17, but in deference to the wish of the Swiss Federation, which had undertaken the organization of the conference, the date of convocation was postponed to October 1 in order to make it possible for representatives of all affiliated national federations to attend. The national organizations of Great Britain, the United States, and Belgium declined, however, to participate in the conference. The reason given by the American Federation of Labor was that at the present time a conference would not lead to any results. Belgium declined the invitation without stating any reason for doing so, and the British Federation of Trade-unions, in a letter, declined to meet in conference representatives of the German working classes. Italy and Spain sent no reply. The French Federation had announced that it would participate, but later sent a telegram, which arrived on the second day of the conference, stating that the French delegates had been refused passports by their Government.

The countries represented at the conference and the number of delegates from each were as follows: Bulgaria, 2; Denmark, 3; Germany, 10; Holland, 8; Norway, 2; Austria, 5; Sweden, 5; Switzerland, 11; and Hungary, 10. In addition there were 5 delegates of the Czecho-Slavic trade-unions of Bohemia, which are not affiliated with the International Federation. These delegates were admitted to the conference with the understanding that in questions relating to organization of the Federation they, like the Bulgarian delegates whose organization also is not at present affiliated with the federation, should have no vote.

The program of the conference was limited to the question of the transfer of the headquarters and reorganization of the International Federation and to the peace demands of the trade-unions. The conference resolved to appoint two committees for the preliminary discussion of these two questions. One representative of each affiliated national organization was elected to the committee for the preliminary discussion of the transfer of headquarters. The second committee, charged with the discussion of the peace demands, was composed of 10 members; i. e., of one representative of each delegation present at the conference.

The first two days of the conference were spent in the reading of letters and telegrams received from national organizations which had

¹ Correspondenzblatt der Generalkommission der Gewerkschaften Deutschlands, vol. 41, No. 27. Berlin, Oct. 13, 1917.

declined to attend the conference or were prevented from attending it. After a spirited debate in which these declinations were criticized, the conference adopted the following resolution:

The international conference greatly regrets that the representatives of the French trade-unions were prevented by their Government from coming to Berne.

The conference acknowledges receipt of the letter of the British General Federation in which the reasons for its failure to send delegates are given. This declination of the invitation to participate in the conference is incomprehensible to the conference because it is inconsistent with the endeavors and objects of the international labor and trade-union movement. The conference does not consider itself competent to sit in judgment on the question of the guilt of the nations and of their governments in the present War, and therefore must disregard the letter of the British General Federation and pass to the order of the day, expressing the sincere wish that in all countries the leaders and masses of the organized proletariat may with all means at their disposal work for an early conclusion of peace.

On the third day of the conference the committee for preliminary discussion of the transfer of headquarters submitted the result of its discussions. J. A. Hansen (Denmark), the spokesman of the committee, stated that the committee had arrived at the decision that "under the present circumstances transfer of the headquarters of the International Federation should not be made, because the conference is not a full conference. As the original movers of the transfer are not present, nothing would be gained by deciding this question at present, because there is no guaranty that the absent national organizations would be willing to abide by such a decision. It should, moreover, be stated explicitly that so far nobody has complained about the business management of the headquarters by the Germans."

During the subsequent long debate only the representatives of Switzerland were in favor of a transfer of headquarters, while the Hungarian representatives recommended a transfer of the secretariat to Switzerland for the duration of the War. Representatives of the Dutch and German delegations spoke against such an arrangement. When the matter came to a vote the conference approved the findings of the committee and with the Swiss delegation dissenting adopted the following resolution:

The conference is not necessarily opposed to settling of the question of the transfer of the secretariat. The circumstances, however, under which the transfer of the headquarters of the International Federation of Trade-unions has been requested, as well as the absence of the original movers of this transfer, cause the conference to defer decision of such an important question of organization and to submit it to the next conference.

In order, however, to maintain international connection among the national organizations affiliated with the federation, the conference confirms the branch office in Amsterdam and charges it with the continuance and expansion of its present intermediary activities. The conference further expects that the national organization will make the utmost efforts to the end that the differences prevailing to-day, which were only caused by the War, may be removed at the earliest possible date and unity be restored.

On the last day of the conference this resolution was supplemented by the following declaration made by the German delegation:

The representatives of the German trade-unions declare that their refusal to consent to-day to a transfer of the secretariat should not be taken to mean that they intend to keep the headquarters of the International Federation of Trade-unions in Germany under all circumstances. They are forced into their present attitude because the British trade-unions in particular have remarked that the transfer of the secretariat would be equivalent to an expression of distrust of Germany. The International Federation can be maintained only if all the national federations have complete confidence in each other. As soon as all national federations will agree to take part in a conference they will find the German trade-unions ready to discuss in an orderly manner the transfer of the secretariat of the International Federation.

The discussion of the peace demands of the International Federation showed again the complete unity of purpose of the trade-unions represented at the conference in all matters relating directly to the safeguarding of the interests of labor. After having examined the various proposals submitted and the resolutions of the Leeds conference, the committee finally adopted, with a few minor changes, the program of the international secretariat. The spokesman of the committee emphasized that, "although several proposals made by members of the committee were withdrawn or not incorporated by the committee in its program, it should not be concluded that the committee was opposed to these proposals. The committee, however, did not consider it suitable to burden the peace program, which is the international program of the trade-unions, with demands going far beyond what can actually be realized within the individual national spheres. The committee was, for instance, forced to decline a proposal of the Swiss delegates for the immediate adoption of the eight-hour-day principle and to accept in its place the Leeds conference proposal that the 10-hour day be adopted as the international maximum working day. This decision was based on the fact that a large number of countries which have no regulation at all as to hours of labor will be parties to the peace agreement. Adoption of the 10-hour day will mean a great progress for them, and this progress will also benefit countries with shorter hours of labor. A similar situation existed with respect to various other proposals which at present can not be realized internationally. The committee, therefore, decided in favor of a minimum program which contains only such demands as have been generally agreed upon by social economists as essential and which have been practically applied in individual countries. Demands for protective legislation for special trades must be deferred until the conference succeeds in creating an internationally recognized agency for the preparation and promotion of matters connected with such legislation. An exception was made by the committee with respect to protection of seamen, because this

international trade requires special acknowledgment. Otherwise the committee's program has been limited to problems of general protective labor legislation such as freedom of travel, right of coalition, social insurance, hours of labor, hygiene, accident prevention, home industry, protection of juvenile and female workers, and the enforcement of labor laws."

The spokesman of the committee then enlarged upon the necessity of energetic promotion of protective labor legislation through the peace treaty, as follows: "The national strength of the European countries has been diminished to such an extent that only extraordinary measures can rehabilitate it. In addition to the loss of millions of men, killed and crippled, the health of those who have survived, unwounded, the hardships, privations, and dangers of the War, has also been impaired. They will feel the physical consequences of the War all their lives and their working capacity will be reduced. Then there must also be considered the weakening of those who while staying at home have in unceasing work and with scanty nourishment expended their best energies. All this applies to all the belligerent European countries, and with respect to conditions of nutrition the neutral countries of Europe are also having great difficulties, the consequences of which are felt most by the working classes. Only socio-political measures on a large scale can help in overcoming the consequences of the War. In order to facilitate such measures certain minimum demands must be established by international action, and action of this kind must be taken in the peace treaty. The peace program submitted by the secretariat and adopted and supplemented by the committee takes into account this fact, the essentials of which are also embodied in the peace program of the Leeds conference. In adopting this program the conference admonishes the nations to acknowledge protective labor legislation as national protective legislation and to develop it as such."

The peace program advocated by the committee was as follows:

I. FREEDOM OF TRAVEL.

- (a) The enactment of prohibitions of emigration shall not be permissible.
- (b) The enactment of general prohibitions of immigration shall not be permissible.

This provision shall not affect—

1. The right of each State to order temporary restrictions of immigration in times of economic depression in order to protect native labor as well as alien immigrant labor.
2. The right of each State to control and temporarily restrict immigration in order to protect the national health.
3. The right of each State to stipulate minimum requirements as to the ability of immigrants to read and write their mother tongue in order to protect its national culture and in the interest of efficient enforcement of the protective labor laws relating to industries in the branches of which immigrant labor is being prevailingly employed.

(c) The signatory States shall obligate themselves to incorporate in their legislation at the earliest possible date provisions which prohibit the hiring of contract labor from abroad and the activities for the same purpose of employment bureaus operated for profit.

(d) The signatory States shall obligate themselves to compile labor-market statistics from organized public employment offices and to interchange these statistics at the shortest possible intervals through an international central bureau, in order to prevent migration of labor to countries in which the chances for employment are small. These statistical reports shall be made accessible to labor organizations in particular.

II. RIGHT OF COALITION.

(a) The right of free coalition shall be granted in all countries to workmen. Laws and decrees (domestic-servant laws, prohibitions of coalition, etc.) which differentiate between individual classes of workmen or deprive them of the right of coalition and of representation of their economic interests shall be abrogated. Immigrant labor shall enjoy the same rights as native labor with respect to participation and activity in trade-union organizations, including the right to strike.

(b) Interference with workmen in the exercise of the right of coalition shall be made punishable.

(c) Alien workmen shall have the benefit of those wage and labor conditions which have been agreed upon by trade-union organizations with the employers of their trade. Where such agreements do not exist the prevailing wage rate of their trade in the locality shall be applicable to alien workmen.

III. SOCIAL INSURANCE.

(a) Countries which so far have not introduced insurance against sickness, industrial accidents, invalidity, old age, and unemployment shall obligate themselves to introduce such insurance at the earliest possible date.

(b) Immigrant workmen shall without consideration of the probable duration of their sojourn in the foreign country have the same status as to rights and duties in all branches of social insurance as native workmen.

(c) Workmen temporarily employed outside of their country (on assembling of machinery, etc.), as well as transportation workers (seamen, etc.) who usually work within the territory of several States shall be subject to insurance in that State in which the enterprise employing them is located.

(d) All documents and certificates relating to social insurance shall be executed without charge and be exempt from fiscal dues.

(e) Alien workmen who have departed from the country in which they have a legal claim to pension shall not lose their claims provided their own country has acknowledged the principle of reciprocity. Detailed provisions as to this question as well as to the mode of payment of the pensions and the regulation of the control of the pensioners shall be made in international treaties.

(f) These treaties shall also regulate whether trade diseases shall be considered as industrial accidents.

(g) Claims on the unemployment insurance of a country become extinct on departure from the country in which the claims have been acquired. Whether claimants shall be granted a travel subsidy is to be regulated by treaty.

IV. HOURS OF LABOR.

(a) The daily hours of labor for all workmen may not exceed 10 hours. The signatory States shall obligate themselves to issue legal regulations, according to which the daily hours of labor shall at fixed intervals be reduced in such a manner that after

a time limit to be fixed by agreement the eight-hour workday shall generally become the maximum legal workday.

(b) The hours of labor in mines, establishments with continuous operation, and in industries especially injurious to the health of the workmen shall be reduced to a maximum of 8 hours per day.

(c) Nightwork between 8 p. m. and 6 a. m. shall be legally prohibited for all establishments in which nightwork is not made necessary by the nature of their operation or for technical reasons. In establishments in which nightwork is permitted the hours of labor shall not exceed 8 hours per shift.

(d) All workmen shall be granted by law a weekly continuous rest period of at least 36 hours during the period from Saturday to Monday. Exceptions from this Sunday rest may be made only for the performance of labor required for the resumption of operation on Monday, for establishments which for technical reasons must be operated continuously, and for those activities which serve for the recreation and education of the people on Sunday. In all of these cases a 36-hour continuous rest period must be granted on week days. Exceptions are to be designated precisely in the law. In order to assure a 36-hour continuous weekly rest period establishments with continuous operation shall organize reserve shifts. The changing of shifts is to be so regulated that each workman is off duty at least every third Sunday.

(e) Those establishments whose processes are especially injurious to the health of workmen shall in each country be precisely designated by decree or law.

V. HYGIENE.

(a) The signatory Governments shall obligate themselves to promote in their countries the development of legislation on industrial hygiene. In particular endeavor shall be made to achieve uniformity of hygiene regulations for the individual industries, and to further a continuous common effort against the use of industrial poisons and particularly dangerous methods of production.

(b) In the work in the field of occupational hygiene designated under (a), the list of industrial poisons compiled by the International Association for Labor Legislation shall be used. Such poisons as can be replaced by less dangerous substances or materials shall be excluded from use in industrial establishments.

(c) Special regulations as to maximum hours of labor shall be agreed upon for the establishments designated under IV (e), having regard to the extent of occupational danger connected with the individual branches of industry.

VI. HOME WORK.

(a) All laws and decrees relating to the protection of labor shall be applicable to home work.

(b) Social insurance shall be extended to home workers.

(c) Home work shall be prohibited—

1. In the case of all work which may involve serious injuries to the health of the workmen, or their poisoning.

2. In the food, beverage, tobacco, etc., industries.

(d) It shall be made obligatory for home workers to notify the authorities whenever they are afflicted with an infectious disease.

(e) Medical inspection of juvenile home workers, analogous to inspection of school children, is to be introduced in all countries.

(f) The keeping and inspection of lists of all workers and intermediary undertakers (subcontractors) in home industry, as well as the keeping of wage books for all home workers, shall be made obligatory.

(g) Equipartisan wage boards shall be established in all districts having home industries and shall determine legally binding wage rates. Lists showing the wage rates shall be posted in the workrooms.

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VII. PROTECTION OF CHILD AND JUVENILE LABOR.

(a) Children under 15 years of age shall be prohibited from exercising any gainful occupation.

(b) Juvenile workers 15 to 18 years of age may not be employed longer than 8 hours per day and must be granted $1\frac{1}{2}$ hours' rest after 4 hours of continuous labor. Provision shall be made for the instruction of male and female juvenile workers in continuation and trade schools, the hours of instruction to fall between 8 a. m. and 6 p. m. Juvenile workers must be granted time to attend these schools.

(c) The employment of juvenile workers shall be prohibited—

Between 8 p. m. and 6 a. m., and on Sundays and holidays; in establishments particularly injurious to the health; in mines on underground labor.

VIII. PROTECTION OF FEMALE LABOR.

(a) The hours of labor of all female workers and salaried employees in large and small industrial establishments, trades, commerce, transportation, and public traffic, as well as in home industries, shall be limited to 8 hours per day and 44 hours per week. On Saturdays the hours of labor shall terminate at noon (12 o'clock) so that such female workers and salaried employees shall be assured a continuous rest of at least 42 hours until Monday morning. Employment of female workers during the time between 8 p. m. and 6 a. m. shall be prohibited.

(b) Undertakers (entrepreneurs) shall be prohibited from giving female workers and employees work to take home to be done after termination of the hours of labor.

(c) The employment of female workers in industries particularly injurious to the health (IV (e)) and in mines both above and below ground shall be generally prohibited.

(d) Before and after confinement women may not be employed in industry for a total period of 10 weeks, of which at least 6 weeks must fall in the time after confinement. The introduction of maternity insurance with a minimum benefit equivalent to the legal sick benefit shall be made obligatory for all States.

IX. ENFORCEMENT OF PROTECTIVE LABOR LEGISLATION.

(a) An efficient industrial inspection service for large and small industrial establishments, trades, home industries, commerce, and transportation, as well as for agricultural establishments using machinery, shall be organized and developed in all countries.

(b) The officers of the inspection service shall be appointed from among technical experts, as well as from among workmen and salaried employees. Their number shall be sufficiently large to insure the inspection of each establishment at least once every half year. The officers of the inspection service shall be granted executive power and be compensated adequately so as to insure their independence. Women shall be employed as inspection officers for the enforcement of the provisions relating to female labor.

(c) Trade-unions organized by virtue of the right of coalition, which is to be granted in all countries, shall cooperate in the efficient enforcement of protective labor legislation. Trade-unions shall in particular be obligated to aid the industrial inspection officers through their committees, secretariats, etc.

(d) In order to assure enforcement of protective labor legislation, owners of establishments with at least five workmen speaking only a foreign language shall be legally obligated to establish at their own expense and under supervision of the educational authorities courses of instruction in which the immigrant workmen may learn the language of the country.

(e) The International Association for Labor Legislation shall explicitly be recognized in the peace treaty as the medium for the promotion and enforcement of international protective labor legislation. The International Labor Office maintained by this association shall collect and publish in the three principal languages all socio-political material, such as statistics, social insurance and labor laws, important decrees and orders, etc., supervise the enforcement of socio-political agreements incorporated in international treaties, remain in constant communication with the central labor offices or Government departments charged with the duties of labor offices, prepare on request opinions on various matters relating to socio-political legislation, undertake the preparation and direction of international investigations in this field, and make studies of everything relating to the development and application of social legislation. The International Labor Office shall in particular act as intermediary in the quick exchange of labor market statistics (I (d)) among the various countries.

(f) The International Federation of Trade-unions shall be granted representation in the International Labor Office.

(g) The International Labor Office shall periodically convoke international congresses for the promotion of labor and social legislation to which the signatory States shall send official representatives. The signatory Governments shall bind themselves to aid in the realization of the resolutions of these congresses.

(h) The costs of maintenance of this office shall be borne by the signatory States.

The program as to peace demands submitted by the committee, was unanimously adopted by the conference, as was also the following resolution submitted by a German representative:

In connection with the adoption of a program as to peace demands the International Conference of Trade-unions addresses to the representatives of the trade-unions and of labor of all countries the urgent appeal to work with all means at their disposal for the recognition and realization of these demands of labor. All national central organizations of trade-unions shall obligate themselves to submit to their Governments at the earliest possible date the demands formulated by the conference and to induce them to support at the peace negotiations the acceptance of the international demands of labor. The conference demands and expects from the Governments of all countries participating in the peace negotiations the admission of representatives of the trade-unions of each country to the discussion and determination of the social-economic part of the peace conditions.

After the adoption of this resolution the conference was closed by its president. On October 7, three days after the close of the conference, the Swiss Federation of Trade-unions received a telegram dated October 2, which announced that the Italian delegation had been prevented from attendance by the refusal of the Italian Government to issue passports to the members of the delegation. A communication was also received in which the Finnish trade-unions expressed their regret at being prevented by transportation difficulties from attending the conference.

SEVENTH CONGRESS OF THE SWEDISH TRADE-UNIONS.¹

The seventh congress of the National Organization of Swedish Trade-unions took place in Stockholm in the week August 20-25, 1917. In addition to the representatives of the central organization 310 representatives of affiliated federations attended the congress. The trade-unions of Denmark, Norway, Finland, and Germany also sent representatives.

During the preceding congress (in 1912) the after effects of the great general strike of 1909 had not yet been overcome, but the downward movement of the membership had reached its lowest point with 83,000 members. Since then there has been a considerable change for the better. The continuously increasing cost of living since the outbreak of the world war has forced the working classes in Sweden as in all other countries to try to obtain wage increases with the aid of the trade-unions. For this reason the membership of the trade-unions increased as greatly as in the years before the general strike of 1909. While on January 1, 1912, the federations affiliated with the central organization had only 80,707 members, on January 1, 1917, the membership had risen to 140,802, and during 1917 the membership continued to increase so that in August 169,000 members were represented at the congress.

The published annual report of the central organization, which at the congress was supplemented by remarks of Herman Lindquist, points out this favorable development of the trade-union movement and contains numerous statistical tables of wage movements which indicate the intensive activity of the individual federations in the interest of their members. Most wage movements had the object of obtaining wage increases on the occasion of renewals of collective agreements. In addition to increased wages the federations in many instances endeavored to obtain high-cost-of-living bonuses. The extensiveness of the wage movements in Sweden during 1916 is shown by the fact that a total of 1,001 movements covering 5,698 employers and 114,872 workmen is reported for the year. The report states that on the outbreak of the war wage movements and strikes were discontinued in Sweden. The mobilization disorganized for some time all industrial activity. Extensive unemployment was the consequence, and employers made attempts to depress wages. All such attempts were, however, frustrated by the trade-unions. Conditions improved slowly but steadily and the panic of 1914 was succeeded by the most intensive industrial activity and general prosperity.

¹ *Correspondenzblatt der Generalkommission der Gewerkschaften Deutschlands*, vol. 27, No. 38. Berlin, Sept. 22, 1917.

The finances of the Swedish trade-unions show a very favorable development during the five-year period ending January 1, 1917. On January 1, 1912, the capital of 30 federations was 1,185,671 crowns (\$317,759.83) or 11.63 crowns (\$3.12) per member, while on January 1, 1917, it had increased to 4,451,728 crowns (\$1,193,063.10) or 28.84 crowns (\$7.73) per member.

The split within the Swedish Social-Democratic Party was greatly in evidence at the congress. A motion to invite the participation of the new Social-Democratic "Independent" Party received a large negative vote. The old dispute as to the political attitude of the trade-unions was revived. Several motions made at the congress demanded separation of the trade-union organization from the Social-Democratic Party. A vote on the question resulted in a victory for the central organization which supported adherence to the party.

Discussion of the problem of syndicalism took up considerable time of the congress. The discussion related less to the nature of syndicalism than to the question as to whether members of trade-unions should jointly and separately oppose syndicalistic strikes. The discussion was ended by the adoption of a resolution which provided that the by-laws of the national central organization and of the national federations shall be binding on the members as to their attitude toward strikes in which they are not personally interested. This resolution refers to all strikes and not only syndicalistic strikes.

A resolution of the congress provided for promotion of local trade-union councils and the granting of subsidies to them by the national central organization. Another resolution set aside 10,000 crowns (\$2,680) for propaganda among rural workers. Creation of an official organ of the central organization was unfavorably voted on by the congress on account of lack of funds. The congress adopted two important resolutions relating to amendment of the by-laws of the central organization. The first of these resolutions amends the right of representation at general conferences of trade-union directorates by providing that federations with less than 10,000 members shall be allowed to send one representative, those with 10,000 to 20,000 members two representatives, and for each additional 20,000 members or fraction thereof one more representative. The second resolution restricted the representation at future congresses to 250 delegates to be elected by the federations on the basis of their membership.

WORKMEN'S COMPENSATION.

WORKMEN'S COMPENSATION AND ACCIDENT INSURANCE IN MARYLAND.

The third annual report of the State Industrial Accident Commission of Maryland,¹ covering the year ending October 31, 1917, states that in the administration of the workmen's compensation law, covering 11,010 employers engaged in extrahazardous employments, the commission received reports of 37,434 accidents (an increase of 19.5 per cent over the preceding year), 32,329 of which carried first aid and subsequent medical treatment at a cost to the insurers of \$98,602.68. The accidents in these cases, it appears, did not cause disability beyond the waiting period of two weeks and therefore did not carry weekly compensation. However, in 4,677 cases weekly compensation and also medical and other treatment were awarded. The report further states that during the year there were paid to beneficiaries under the act \$591,211.06, and that there remained outstanding at the end of the year \$279,715.36 to be paid in the future on awards made during the year in fatal cases and cases of permanent disability in which specific awards could be made, besides a large number of outstanding claims for temporary disability cases, the aggregate amount of which can not be given. A plea is made by the commission for a larger annual appropriation than the \$55,000 now allotted by the State.

The report states that there were filed during the year 5,117 claims, of which 12 were duplicates, leaving 5,105 claims for compensation, of which 131 were for fatal cases. Awards were made in 4,677 cases, as already noted, the distribution of benefits being indicated in the following statement taken from the report:

Amounts awarded.

102 awards in fatal cases.....	\$244, 354. 83
398 awards in cases of permanent partial disability.....	119, 618. 19
Total awarded in specific awards.....	363, 973. 02

To this must be added the cumulative amount awarded for cases of temporary total disability, which run during the continuance of disability and therefore can not be definitely estimated in advance, in order to measure the benefits which the operation of the law has effected during the year.

¹ Third annual report of the State Industrial Accident Commission of Maryland for the year Nov. 1, 1916, to Oct. 31, 1917. Baltimore [1918]. 52 pp.

Amounts paid during the year to beneficiaries in compensation, medical, and other expenses.¹

Permanent partial.....	\$53,815.86	
Temporary total.....	361,664.83	
Fatal.....	30,461.60	
Medical expense.....	40,439.84	
Funeral expense.....	6,226.25	
Total in claim cases.....		\$492,608.38
Reported medical in accident cases in which there was no claim.....		98,602.68
Total benefits paid.....		591,211.06
Outstanding to be paid in the future on awards made during the year in—		
Fatal cases.....		213,913.23
Permanent partial cases.....		65,802.13
Total.....		870,926.42

Some general facts connected with the awards may be noted, the numbers and percentages in each case being the largest in the particular group considered: "Falls of persons" was the cause of injury or death in 937 cases (18.4 per cent); 1,503 (29.4 per cent) cases involved cuts and lacerations; most of the awards, 2,345, or 45.9 per cent, were made to laborers both skilled and unclassified; in 937 cases (18.4 per cent) the fingers were affected; the ages of those receiving awards were between 35 and 39 in 705, or 13.8 per cent, of the cases; and 2,538 (49.7 per cent) of the injured or killed were receiving from \$10.01 to \$15 per week, while 3,459, or 67.8 per cent, were receiving \$15 or less.

The following is a statement of the condition of the fund as of date October 31, 1917:

ASSETS.

Cash on deposit, State treasury.....	\$55,359.40	
Stocks and bonds.....	128,450.00	
Accrued interest on above and on deposits.....	1,393.67	
Policyholders' accounts (premiums in course of collection).....	24,759.45	
Total assets.....		\$209,962.52

LIABILITIES.

Reserve for losses.....	\$61,117.58	
Reserve for unearned premium.....	7,519.69	
Reserve for reinsurance.....	2,736.95	
Reserve for expenses (Jan. 1, 1917, to Oct. 31, 1917) ²	8,200.62	
Reserve for special surplus ³	26,145.54	
Reserve for surplus.....	104,242.14	
Total reserves.....		209,962.52

¹ The number of cases involved is not given in the report.

² To be paid into the State treasury after Jan. 1, 1917. Sec. 27, ch. 597, Acts of 1916.

³ Sec. 23, ch. 800, Acts of 1914.

INCOME AND DISBURSEMENTS.

Income.

Net premiums written.....	\$142,979.83	
Interest on deposits.....	540.29	
Interest on investments.....	3,275.00	
Accrued interest on deposits and investments.....	1,393.67	
Total income.....		\$148,188.79

Disbursements.

Losses paid, medical.....	\$10,318.50	
Losses paid, temporary total disability.....	15,033.35	
Losses paid, permanent total disability.....	593.23	
Losses paid, temporary partial disability.....	192.36	
Losses paid, permanent partial disability.....	3,396.73	
Losses paid, death (dependency).....	6,707.02	
Losses paid, death (no dependency).....	150.00	
		36,391.19
Less amount paid on account of accidents that occurred prior to November 1, 1916.....		13,649.20
Net losses paid for 12 months ending October 31, 1917.....		22,741.99
Reinsurance.....		3,085.18
Return premiums.....		247.16
Reserve for expenses ¹ (due State treasurer Jan. 1, 1918).....		8,200.62
Reserve for losses (accidents Nov. 1, 1916, to Oct. 31, 1917).....		36,406.94
Reserve for reinsurance.....		2,736.95
Reserve for special surplus ² (on premiums written Nov. 1, 1916, to Oct. 31, 1917).....		14,297.98
Reserve for surplus (additional account business Nov. 1, 1916, to Oct. 31, 1917).....		60,471.97
Total disbursements.....		148,188.79

OPERATION OF THE OHIO STATE INSURANCE FUND.

The Ohio Industrial Commission has just published a report containing a survey of the operations of the State insurance fund.³ This report is issued as a communication to the subscribers to the fund and is an effort to determine the amount the Ohio plan has saved the employers of the State. The commission applied the stock company rates to the earned pay roll which had been developed under the Ohio plan and found that the premiums thus computed from July 14, 1911, to May 15, 1917, would have amounted to \$27,174,402.59. Deducting from this sum 2½ per cent loading for taxes and 16 per cent for a possible reduction of rates on account of faulty operation of the merit rating system, leaves \$22,255,835.73 as the minimum amount of insurance premiums that would have

¹ To be paid into the State treasury after Jan. 1, 1917. Sec. 27, ch. 597, Acts of 1916.

² Sec. 23, ch. 800, Acts of 1914.

³ A Survey of the Workmen's Compensation Insurance Field in this Country. Bulletin of the Industrial Commission of Ohio, December, 1917.

had to be contributed by the employers of the State. On the other hand the actual total losses of these subscribers to the State fund for the same period were \$12,967,486.92, and the aggregate cost of administering the State fund was \$1,101,406.51, making a grand total cost of \$14,068,893.43. The cost of administration includes the original cost of organizing the State fund, all rating inspections, statistics, claims, investigations, settlements, and the commercial rate of rent on all office space. The saving to the employers therefore has been "the difference between \$22,255,835.73 and \$14,068,893.43, or \$8,186,942.30. In other words, the increase in the cost of the plan of the liability insurance companies over the Ohio plan is as an absolute minimum 58 per cent."

The report further states that "the earned premium of the Ohio State insurance plan for 1917 will be approximately \$8,000,000. The total cost of administering the Ohio State insurance plan for 1917 is \$312,279.30. (Incidentally the interest earnings of the fund for the year have been \$304,455.27. * * *) Computed on the basis of their 40 per cent expense ratio, it would have cost the liability insurance companies \$5,333,000 to have provided this \$8,000,000 in compensation benefits. * * * It is conservative to state, therefore, that for the single year 1917 the Ohio State insurance plan has saved its subscribers, as an absolute minimum, \$5,000,000." Using the same basis of computation for the entire country the commission concludes that had the Ohio plan been in operation throughout the United States it would have saved the employers of this Nation in the single year of 1917 the sum of \$23,400,000.

The following four reasons are given why the Ohio plan would result in such great saving to the employers: (1) The factor of acquisition cost or agents' commissions would be eliminated; (2) duplication of work in pay roll auditing, claim adjustments, statistical computations, and so on, would also be eliminated; (3) the maintenance of a home office in the East with its heavy attendant expense would be unnecessary; and (4) the Ohio plan pays no dividends to stockholders.

The report traces the development of the State fund insurance plans in the United States. The cumulative annual premium income in 1911 was \$422,818.20, while in 1917 it had increased to \$53,131,043.67. "Thus, whereas in 1911 the liability insurance companies had substantially a complete monopoly of the industrial accident field in the United States, in the brief space of six years the State funds have entered and are now already writing almost one-third as much business as are these companies."

The report also contains two sets of comparative insurance rates for practically all risks or classifications. One compares the Ohio

rates of March 1, 1912, with those in effect July 1, 1917; the other compares the rates of nine States (New York, California, Illinois, Wisconsin, Indiana, Michigan, Kentucky, Colorado, and Pennsylvania) which were in effect in 1917.

WORKMEN'S COMPENSATION INSURANCE RATES FOR MINING AND SMELTING IN UTAH.

The State of Utah, which enacted a workmen's compensation law in 1917, has just adopted a schedule of insurance rates for mining risks for the State insurance fund. These rates, which were computed by the National Workmen's Compensation Service Bureau of New York City, have been critically analyzed in a report made to the Utah chapter of the American Mining Congress by Dr. I. M. Rubinow.¹

The question of reasonable and adequate insurance rates under workmen's compensation laws is an important one from the viewpoint of the employer. The determination of adequate rates, however, because of insufficient accident experience and the complex actuarial factors involved, is a difficult one.

Two main factors enter into the making of compensation rates—(1) the basic pure premium or actual cost of compensation benefits, and (2) the multiplier, composed chiefly of the law differential and the loading expense or cost of administration. Dr. Rubinow has subjected each of the several factors to a critical examination and concludes that the rates computed by the national bureau and adopted by the Utah Industrial Commission are too high. These rates and the basic pure premiums upon which they are based are as follows. The multiplier for the State of Utah was computed at 2.49.

	Premiums.	Basic pure premium.
Clay and shale—surface.....	\$3. 70	\$1. 48
Gold mines.....	4. 54	1. 70
Ore concentration.....	4. 04	1. 62
Metal mines.....	5. 59	2. 24
Iron mines.....	6. 70	2. 69
Smelting.....	6. 11	2. 45

BASIC PURE PREMIUMS.

As already noted, the basic pure premium means the net cost of compensation losses in each classification, ascertained from experience and reduced to the basis of the old Massachusetts compensation law of 1912, which is now obsolete. In ascertaining this basic pure

¹ Report on Insurance Rates for Mining and Smelting under the Workmen's Compensation Law of Utah, by I. M. Rubinow, consulting actuary and statistician, New York City, to Utah chapter, American Mining Congress, June 6, 1917. 23 pp.

premium, experience of many States has been used. But in view of the difference in the compensation scales of different States, the experience of many States is reduced to what it would be on the scale of the old Massachusetts act. The basic pure premium of \$2.24 for metal mines has been accepted without criticism inasmuch as all such premiums have been agreed upon by a so-called standing committee in which stock companies, mutual compensation companies, State insurance funds, and State insurance departments were represented. These basic pure premiums represent the best information and judgment available and, as regards mining, based upon many million dollars of experience from Colorado, California, Michigan, and other States.

THE MULTIPLIER.

The multiplier of 2.49 consists of five factors:

1. Loading for underestimates of outstanding losses..... 1.02
2. Factor of law differential..... 1.30
3. Factor of loading for increased industrial activity..... 1.10
4. Expense loading, 40 per cent of gross premiums.
5. Loading for profits, 1½ per cent of gross premiums.

The formula used is as follows: $\frac{1.02 \times 1.30 \times 1.10}{.585} = 2.49.$

The denominator of 0.585, or 58.5 per cent, is obtained by subtracting from 100 per cent the total of factors 4 and 5. These several factors of the multiplier are analyzed in detail in the report.

UNDERESTIMATE OF OUTSTANDING LOSSES.

The loading of 2 per cent is based upon the theory that the experience from which all rates are to be computed consists partly of losses actually paid and partly of losses not yet paid and outstanding. These latter losses are estimates, and it is claimed that on the whole they are somewhat lower than they should be. To correct this error the actuarial committee of the national conference has agreed to load the pure premiums for this factor by 1.02. The author suggests that after four or five years of experience the insurance companies should have learned sufficiently to estimate outstanding losses, and therefore it should not be necessary to load for underestimates; but since this loading of 2 per cent is not a very heavy burden and has been unanimously adopted, no objection should be raised against it.

LAW DIFFERENTIAL.

The law differential for the Utah act was computed by the National Workmen's Compensation Service Bureau at 1.30. This law differential measures the comparative cost of the Utah law in proportion

to the old Massachusetts act. In other words, the scale of benefits under the Utah act are 30 per cent higher than those of the 1912 Massachusetts law would have been. While adhering strictly to the method of computation used by the national bureau, Dr. Rubinow has arrived at the substantially smaller differential of 1.18 instead of 1.30. The details of this computation are given in the report. The different result obtained is stated as being entirely due to information as to wage conditions in the Utah mines, which data have never been published, and were therefore not available to the committee compiling the differential in New York. The reason why wage conditions affect the law differential is given as follows:

Most compensation benefits are expressed in weeks' wages. The premiums are also computed as a percentage of the pay roll. Therefore, the computation of a law differential is made by estimating cost of accidents, not in dollars and cents, but in weeks' wages. In the Utah law are certain provisions about maximum benefits which substantially reduce the cost of compensation. In payment for temporary disability and also for dismemberment there is a \$12 maximum limit. In payments for fatal cases and for total permanent disability there is a \$15 per week maximum limit. In other words, while the law in general provides for a 55 per cent benefit scale, a great many workmen will receive a good deal less than that.

This fact was, of course, well known to the committee which computed the Utah differential. Evidently the saving will be greater whenever wages are higher. If the injured workman receives only \$2 or \$3 per day, little will be saved of this compensation because of a maximum limit. If the injured workman is a miner, receiving \$4, \$5, or \$6 per day, the saving produced by the maximum will be substantial, and the higher the wage the greater the saving.

The New York committee had no data in regard to wages paid in the Utah mines, nor, in fact, in regard to any wages paid in Utah. Therefore, in order to estimate the saving produced by this maximum limit provision of the law, they have used some statistics of wages in California, for 1914 or 1915. The average wage in the statistics used by the committee was \$18.95 per week. Information collected by me here in regard to the 7,400 employees in mines and reduction mills indicates an average weekly wage of \$27.65, obviously producing a very much larger saving than the committee figured on.

My computations indicate that a maximum limit of \$12 produces a saving of 20 per cent as against what the cost would have been without such limit, while the bureau committee only allowed a discount of 5 per cent for that. The \$15 limit produced in my computation a discount of 10 per cent as against one of 3½ per cent in the bureau's computations.

The second point where I am forced to differ from the bureau is in the cost of medical aid, and that also largely depends upon the same factor of wages.

The average cost of medical aid under the old Massachusetts law was estimated at nine-tenths of a week's wage. Since the Massachusetts law gave medical aid only for two weeks, and the Utah act provides for medical aid up to \$200, the committee figured the charge for the average cost of medical aid at 1.4 of a week's wage. This charge would not be excessive if it only meant an increase of some 50 per cent in cost, but as a matter of fact, it means a good deal more than that. The average wage in Massachusetts is about \$14.22, and nine-tenths of that makes the average cost of medical aid per case in Massachusetts \$12.80, while the average wage in the metal mines and mills of Utah is \$27.65, and 1.4 times that amount equals \$38.71, which is in my opinion

entirely too high. The allowance I made of 1.17 week's wages per case will give \$32 per case, and should be more than ample.

It thus appears that, without going into the discussion of the law differential for the entire manual and classifications where the differential of 1.30 may be fully justified, the differential of 1.18 should be more than ample for mines and metal mills.

As a matter of fact, even without going into actuarial details, these are practically the conditions as between the Utah law and the old Massachusetts act:

1. The scale of benefits is 55 per cent instead of 50 per cent, thus adding 10 per cent to the cost.

2. The waiting period is reduced to 10 days instead of 2 weeks, a slight addition of perhaps 1 per cent or 2 per cent to the total cost of the act.

3. The cost of permanent partial disability cases and dismemberments is about the same, but the premium totals are much more costly in case of total permanent disability providing for life benefits. This case, however, is extremely rare. The provisions for medical aid are more liberal.

As against these factors of increasing cost there is, as already pointed out, the very material saving produced by the maximum limit applied to the high Utah wages.

It may also be pointed out that there is a strong probability of this saving becoming greater, as wages are likely to continue to increase in the next year or two. Over 75 per cent of wageworkers under present wage conditions would receive \$12 per week instead of 55 per cent of their wages, and 40 per cent of the wageworkers in case of total permanent disability or death will receive \$15 instead of 55 per cent. With an increase in wages this difference will be still greater.

The statistical tables and methods of computation by which the author arrived at the law differential of 1.18 are given in detail in the report. Briefly, it is the application of his "standard accident table" to the Massachusetts and Utah compensation laws.

LOADING FOR INCREASED INDUSTRIAL ACTIVITY.

A loading for increased industrial activity was placed upon compensation rates for the first time this year. This loading for Utah has been computed at 10 per cent. It is claimed that the experience used for computing the basic pure premiums refers to 1912, 1913, and 1914, and partly to 1915, and therefore would be misleading when applied to the cost in 1917. The committee in New York which decided to put on an additional loading for this difference between the cost in 1912 to 1914 and a probable cost next year, has given the following reasons:

The intense business activity has caused establishments to speed up. This in return has resulted in the employment of inexperienced help, in the overworking of the help, in the casting aside of safety campaigns and safety measures of one kind and another, in the overcrowding of factories, etc.

Industrial activity has caused a shift in employment. This shift was doubtless very general and affected workers in all occupations. Together with this shift of labor there was undoubtedly some adopting of labor sources not usually used. On the whole, the shift on labor placed many workmen in positions which they had not had sufficient training to fill efficiently, and which they never would have been called upon to fill under normal conditions.

Dr. Rubinow states that on the whole it seems preferable to accept the loading factor of 1.10 for increased industrial activity as a margin of safety. The difficulties of the labor market are generally recognized, and they may affect the mines in Utah to some extent. The other consideration as to the overworking of help and the overcrowding of workshops probably does not apply to the mines and metal mills. These factors, however, were left in by the author, so as to meet the possible argument that an effort has been made to reduce the cost below the lowest level compatible with safety.

EXPENSE LOADING.

The expense loading is the insurance carrier's cost of doing business or the general administration expenses. This includes the expense of acquisition, administration, inspection and claim adjustment, taxes, and special items. The stock casualty companies are at present doing compensation business at an expense of 40 per cent of the gross premiums. In addition, for the first time a special profit loading of $1\frac{1}{2}$ per cent on gross premiums has been provided for. A loading for expense and profit of $41\frac{1}{2}$ cents on the dollar of gross premiums means that only $58\frac{1}{2}$ cents are left for payment of losses. Finally, 1 cent is added to the premium rate of each classification as a general loading for catastrophe hazards. The question, however, is not so much whether this entire method should be accepted or rejected, but only how far the various factors and loadings are applicable to mining conditions in Utah.

In defense of this expense loading, it is claimed by the casualty companies that compensation on an average requires some 40 per cent expense, distributed as follows:

Acquisition expense.....	16.9
Administrative expense.....	9.1
Inspection and adjustment expense.....	10.5
Taxes and special items.....	3.2
Total.....	39.7

After an examination of the several factors comprising the expense loading the author concludes that a loading of 30 per cent is sufficient. Several arguments are offered justifying this conclusion. In the first place the high premium rates and also the large pay-roll exposure would justify a reduction in the expense loading since the agency commissions and administrative expense would be lower. Moreover, the fact that several casualty companies have combined to write coal-mine insurance in many States on a basis of 25 per cent for expense loading leads the author to believe that a lower expense loading may also be possible in case of metal mines. The experience

of mutual companies is also cited. Such mutual companies writing compensation insurance in the East with similar average premium policies here reported an expense loading of 18.3 per cent.

The author concludes his report with a discussion and analysis of insurance rates for coal mines.

WORKMEN'S COMPENSATION INSURANCE AND THE CATASTROPHE HAZARD.

The problem of the catastrophe hazard, involving the infliction of large losses by the occurrence of a single accident, is not a new one in the field of employers' liability insurance, but with the establishment of the workmen's compensation system its importance has been greatly increased. This was emphasized early in the history of workmen's compensation in this country by the so-called Chehalis disaster, in which 8 out of 10 of the employees in a factory manufacturing fireworks in the State of Washington lost their lives on November 1, 1911, one month after the compensation law of that State had gone into effect, this being also the first year in which any effective State law became operative. The number of persons killed, while not large in comparison with the results of mine explosions, was disproportionate in relation to the number of persons in the class to which the employment was assigned under the Washington statute, and had the effect of seriously overburdening the fund, a condition from which it has not yet extricated itself.

The law of West Virginia, also providing for classified funds for State insurance, went into effect in October, 1913. A truly catastrophic disaster occurred in April of the following year, in which 183 persons were killed, involving costs and liabilities in excess of \$223,000. The next largest disaster affecting this fund occurred in March, 1915, when 112 men lost their lives in a single explosion, costing the fund an additional \$140,593. The Washington authorities have been seeking a remedy in the enforcement of contributions from the larger employers in the industrial group affected, while in West Virginia a reserve fund was provided for by an act of 1915, "to cover the catastrophe hazard and all other unanticipated losses." Obviously both of the methods must be brought into play to secure the proper protection of employees exposed to hazards of the nature under consideration, since an unsupported fund, no matter what percentage of contributions are set aside for reserves, will not be adequate; while on the other hand, a fair average rate of contributions can not be counted upon to meet the catastrophe hazard in extra-hazardous employments.

It is only in a minority of the States thus far, however, that the question must be met by either of these methods, since in most instances the insurance is carried, not in a State fund, but in insurance companies, stock or mutual. In the incipency of the movement, stock companies were inclined to refuse extrahazardous risks, of which coal mining is the most conspicuous instance, listing them in their instructions to agents as "prohibited risks." Inasmuch, however, as the prosecution of such industries is essential, it was obviously undesirable that employees engaged therein should be without the protection of an adequate guaranty for the payment of the compensation contemplated by the law. About two years ago, therefore, 10 of the principal companies engaged in insurance of workmen's compensation formed a pooling system, calling themselves The Associated Companies, for the especial purpose of bearing collectively the risks involved in insuring the payment of compensation to employees in coal mines. The favorable results of this organization have led to the extension of the arrangement to a class of risks recently greatly enlarged, i. e., the manufacture of munitions for the use of the United States and its Allies, and to certain other industries. The urgency of the situation is no less than in the case of coal mining, and the hazard is equally as great, if not greater. The experience of The Associated Companies with regard to coal-mine insurance led to the development of a proposition which was made public on January 12, through the chairman of The Associated Companies. Beginning with a brief account of their experience in handling coal-mining risks, the enumerated companies announce that they, "under the same operating name, have now entered into a supplemental agreement to provide a coinsurance and reinsurance method for handling not only risks possessing an obvious element of collective hazard, but risks which for other reasons are difficult subjects of insurance for a single company." The classifications proposed to be covered are not ready to be announced, but "can best be described by the term 'prohibited risks,' if we adopt the vernacular of the insurance office."

The grounds for the action are stated in the following paragraphs:

These companies unanimously believe that there should be no such thing as an uninsurable workmen's compensation risk if the elements of hazard are limited to those which are necessary and inherent in the business. The reason for the maintenance of a prohibited list by individual companies is that certain risks, because of the collective hazard involving possible injuries to many persons in one accident, or because of other conditions which can not be fully described except at great length, can not be adequately distributed by one company, however large its premium income or however wide its distribution, under the existing practices and requirements of compensation insurance. Compensation insurance properly written involves an unlimited policy undertaking so far as amount is concerned, and ordi-

narly involves the requirement that the entire risk should be accepted by one company. Safety for both the policyholder and the company is obtained only by sufficient distribution. Distribution is sometimes attempted by ordinary reinsurance methods. Under this practice one company takes the risk entire and reinsures parts of it with other companies. Such other companies are ordinarily not disclosed to the policyholder, and the policyholder has no contract relation with them. Such reinsurance methods fail to meet the peculiar requirements imposed by compensation and, therefore, other methods should be devised which will positively provide not only cohesiveness and continuity of the reinsuring interests but also uniform treatment of difficult risks and maximum protection to both the employer and employee engaged in hazardous undertakings.

The arrangement now perfected for handling these difficult risks is in reality an extension and simplification of the long-existing theory of coinsurance rendered uniform and certain by a joint and several policy rather than by independent policies of companies involving a joint and several obligation.

The Associated Companies propose not only to provide indemnity according to the provisions of the law and of their contracts, but to render service in behalf of safety and the reduction of accidents by the combined knowledge and experience of the whole group.

The gross assets of the companies forming this combination were at the end of the year 1916 in excess of \$300,000,000, no doubt considerably increased during the ensuing year, though the figures are not yet available. The protection of this fund will be extended to any employer who "will give proper attention to, and provide suitable remedy for, the unfavorable elements of the risk which are within his control. The 'prohibited' list of the future, therefore, will include only those employers who, because of indifference, unwillingness or deliberate design, refuse to improve and maintain the moral and such of the physical conditions of their risks as are capable of improvement and which, if unimproved, constitute a hazard against which no insurance should under any circumstances be provided."

ACCIDENT COMPENSATION AWARDED FOR NYSTAGMUS.¹

A decision very important for miners has recently been rendered by the Superior Insurance Office in Dortmund, Germany, with respect to the claim of a miner for award of an accident pension for nystagmus developed consequent to an accident. Nystagmus is a spasmodic movement of the eyes, rotatory or from side to side, frequently affecting miners and others working in a dim light and a stooping position.

The miner in question suffered an accident on September 10, 1915. He was hit on the right parietal bone by a piece of rock weighing about 1 pound. A week later the injury caused develop-

¹ Correspondenzblatt der Generalkommission der Gewerkschaften Deutschlands. Arbeiterrechts-Beilage, No. 10, Berlin, Oct. 13, 1917.

ment of erysipelas. On November 1, 1915, the miner was again able to resume his work but even during the first shift he observed that he could not see well and had the feeling that all objects whirled round him (objective vertigo). He consulted a physician who diagnosed it nystagmus. Subsequently the nystagmus became so violent that the workman could not continue in his occupation as a miner and after long idleness had to accept less remunerative employment in the mine at repair work. A claim for accident pension filed by him with the Miners' Trade Accident Association was disapproved. In disapproving the claim the association stated that nystagmus is a common trade disease among miners and may have been latent in the case of the claimant and that proofs were lacking that the nystagmus of the claimant had been caused or aggravated by the accident.

In the subsequent proceedings on appeal voluminous expert medical testimony bearing directly or indirectly on the case in question was introduced. It was pointed out that a large number of medical authorities, particularly in France and Belgium, take the point of view that nystagmus can be caused through accident or disease. A lengthy medical opinion rendered by the Royal Eye Clinic in Marburg where the claimant had undergone examination stated in a very positive manner that in the case of the claimant everything points to causal connection between the accident and his disability due to nystagmus. This opinion estimated that the earning capacity of the claimant had been reduced 20 per cent and the Superior Insurance Office in Dortmund concurred with this opinion and ordered the Miners' Trade Accident Association to grant the claimant a pension corresponding to 20 per cent of his previous computable annual earnings.

The decision rendered in this case is of special importance for miners because up till now it has always been disputed that the manifestation of latent nystagmus can be caused through an accident. Nystagmus has always been considered as a trade disease no matter what phenomena accompanied its manifestation.

INDUSTRIAL ACCIDENTS AND DISEASES.

BLINDNESS FROM INDUSTRIAL USE OF WOOD ALCOHOL.

The following article by Dr. John M. Robinson, of Duluth, Minn., is reprinted from the *Journal of the American Medical Association* for January 19, 1918 (p. 148). It gives an account of a case of blindness resulting from the industrial use of a commercial product containing a 4 per cent solution of wood alcohol, with some discussion of the danger of poisoning from denatured alcohol containing wood alcohol as the denaturing fluid. In connection with this article reference should be made to an article by Dr. Alice Hamilton in the *MONTHLY REVIEW* for February, 1918, on "Dope poisoning in the making of airplanes," in which there is further discussion (p. 47) of the danger of using wood alcohol as a denaturing agent.

T. P., aged 29, a Greek of good physique, was referred, June 1, 1917, to my ophthalmic service at the Duluth Free Dispensary because of some difficulty which an optician had had in fitting the man with glasses. Complaint was made that objects looked smoky, and that the sight of the left eye had been failing for six weeks. Vision of the right eye was 20/30 and J. 2; the color fields were much contracted; the field for white was moderately reduced on the nasal side, and greatly contracted on the temporal side. No definite scotoma could be located. The optic disk showed possibly a slight pallor. Vision of the left eye was reduced to fingers at 1 foot, except in the upper temporal quadrant, where fingers could be counted at 12 feet. The disk on this side was distinctly pink—a capillary congestion. Neither at this time nor later was there increased tension of either eye, or changes in the media or fundi beyond the disks. The vessels remained of normal caliber, with no swelling nor cupping of the nerve heads. The pupils were equal, and noticeably large, the dilatation being marked in reduced light; reaction to accommodation and light was equally sluggish. Twelve days later the vision of the right eye had fallen to 20/70, at which point it remained for about a fortnight, and then sank with the left, so that by September 15 the bare detection of finger movements was the best that either eye could do. Both optic disks in the meantime had become very white.

The family history was negative. The father and mother and nine brothers and sisters were all living and in good health. There had been no visual trouble among the grandparents, as far as known. The personal history was clear up to April 1; no injury, and no illness other than the usual diseases of childhood. Syphilis was denied, and evidences of it were lacking. The patient's wife was well, in her first pregnancy, and since has been delivered at term of a healthy child. The Noguchi test was negative. There was no ataxia. The patellar and other reflexes were normal. There were no signs of tabes or paresis. The teeth, tonsils, nasal accessory sinuses, gastro-intestinal and renal functions and the pituitary and thyroid glands were all given consideration.

The man had worked as a railway warehouseman up to March 1, at which date he obtained employment in a shoe-shining and hat-cleaning shop connected with a cigar stand. Here he worked for two or three hours each day dyeing hats with a

commercial product called "Colorite"—a black liquid dye with a rather faint yet distinct odor of wood alcohol. The place was fairly well ventilated; there was also a door which was very frequently opened on the street. The temperature was about 70° F. His hands were spattered and stained black "about a quarter of the time." After five or six weeks of this he first began to note that objects looked smoky, while coincidentally he became easily tired, perspired freely, and suffered slightly from nausea and a somewhat vague "stomach trouble." There was slight headache and dizziness, which, however, eventually disappeared. These symptoms were more or less pronounced when he came under my observation after six weeks. When last seen he was once more in good health, but totally blind. This picture is, I believe, fairly typical of wood alcohol poisoning of the slow type. To make it a more perfect case, the findings should have included a scotoma, and "contracted retinal vessels," perhaps.

An original bottle of "Colorite," of which the man had used a dozen or more, was sent to the Bureau of Labor Statistics, United States Department of Labor. An analysis made at the Hygienic Laboratory disclosed 4 per cent of wood alcohol, the coloring matter being reported as one of the indulin group, negrosin. Though anilin black, as well as other of the anilin dyes, may sometimes be classed as poisons, and have been known to exert deleterious action on the cornea and conjunctiva,¹ no instance of nerve atrophy has been reported as following the use of any of the indulins. The man polished few shoes; nitrobenzene seemed not to be a possibility. The wife and fellow workers stated that he was an abstainer from alcoholic drinks.

DANGERS OF WOOD ALCOHOL.

In reporting one of the formidable series of imbibition cases from Russia subsequent to the abolition of vodka, Yakovleva² calls attention to the cumulative action of the poison. Tyson and Schoenberg³ refer to over a hundred cases of death and blindness, up to 1912, following the inhalation of wood alcohol. Buller and Wood,⁴ in their review of the subject, say, "It is also highly probable that in susceptible subjects repeated or even single methylated 'alcohol rubs' may produce poisonous symptoms, through absorption of the spirit by the skin." A few cases put on record since that report have corroborated this view. Campbell⁵ mentions a patient who had his chest bathed once daily for two weeks with wood alcohol, resulting in light perception only in one eye, and vision 15/20 in the other, with contracted field. Woods⁶ reported sudden blindness coming on in a man who had rubbed his legs with wood spirit each day for a month. Ziegler⁷ mentions an instance in which a temporary amblyopia followed exposure to the fumes of wood alcohol for only one hour daily over a month's period. The findings of Loewy and von der Heide⁸ that as small an amount of methyl alcohol as 0.2 per cent in the inspired air may lead to absorption in the body in not inconsiderable quantities indicates the possible danger that exists in even a moderate exposure to the poison.

¹ Lewin and Guillery: *Die Wirkungen von Arzneimitteln und Giften auf das Auge*, Berlin, 1905, 2, 788 (anilin black); 1, 737 (nitrobenzene); p. 372 (wood alcohol).

² Yakovleva, A. A.: Cases of loss of vision from eau de Cologne, denatured alcohol, and similar substitutes for whisky, *Russk. Vrach*, 1915, 14, No. 25; abstr., *Journal American Medical Association*, Oct. 9, 1915, p. 1316.

³ Tyson and Schoenberg: *Archives of Ophthalmology*, May, 1915.

⁴ Wood, C. A.: Death and blindness from methyl or wood alcohol, *Journal American Medical Association*, Oct. 22, 1904, p. 1220.

⁵ Campbell: *Journal of Ophthalmology and Oto-Laryngology*, Sept., 1915.

⁶ Woods, Hiram: Wood alcohol blindness, *Journal American Medical Association*, June 14, 1913, p. 1762.

⁷ Ziegler, Lewis: *Archives of Ophthalmology*, 1914, p. 516.

⁸ Loewy and von der Heide: *Biochemische Zeitschrift*, 1914, 65, 230.

In a report relative to the possibility of poisoning taking place when the proportion of methyl alcohol is as small as 4 per cent, Dr. Alice Hamilton¹ quotes von Jaksch² to the effect that workers with denatured alcohol have shown symptoms of wood alcohol poisoning; Kobert,³ who says that the disturbances of health complained of by these workmen are to be attributed in part to the piridin bases used in denaturing, and in part to the wood alcohol, and Goldsmith,⁴ who agrees with Kobert, and who states that there was so much ill health and discomfort complained of by the men working with denatured alcohol that the workers sent petitions to the Reichstag, in consequence of which an inquiry was ordered.

Lewy⁵ reports that for the time during which, in Austria, denaturing was done by means of a 2 per cent admixture of wood alcohol and 0.5 per cent piridin bases (the present U. S. Internal Revenue Formula 2), there were so many reports of sickness caused by the use of alcohol so denatured that the ministry undertook an investigation in Bohemia, where many of the Austrian industries are located. The report emphasized the fact that wood alcohol was being used as the denaturant in place of pure methyl alcohol, and that wood spirit contains large quantities of acetone, aldehyde, allyl alcohol, methyl acetate, and other volatile compounds, all of which are toxic in a higher or lesser degree; but the report admitted that the effect of methyl alcohol was undoubtedly the principal one. There were at that time a number of cases of amblyopia among the Bohemian workmen who had been using denatured alcohol.⁶

The United States Internal Revenue regulations prescribe two general formulas for denaturing: The one, as mentioned above, a trifle less than 2 per cent wood alcohol, while formula 1 provides for 10 parts of this spirit and 1 part of benzine to 100 parts of ethyl alcohol, each by volume, a mixture which, though suggested by no less authority than Dr. Wood,⁷ would seem from the Austrian account to be fairly dangerous. It has also been set forth as an argument in favor of the use of wood alcohol as a denaturant that a 10 per cent "methylated spirit" has for a long time been used in Great Britain and that no case of amaurosis has been reported from its industrial use. I spent part of my apprenticeship in the English clinics, and again more recently was relief house surgeon at Moorefields. The vast majority of British workmen who live in or near the large centers go to the hospital clinics for their eye treatments; the clinics are usually crowded; the time for investigation is limited, nor is it common practice to follow the dubious case back to the home or workshop. It was found in reviewing the histories of 300 optic atrophy cases—an opportunity afforded through the courtesy of some of the Moorefield staff—that even when the aids of Wassermann, Roentgen, and Onodi had been taken advantage of, 15 per cent of the optic nerve degenerations remained unexplained.

In the same number of the *Journal of the American Medical Association* appears another article (p. 145) on "Wood alcohol poisoning," by A. O. Gettler, Ph. D., and A. V. St. George, M. D., pathologic chemist and pathologist, respectively, Bellevue and Allied Hospitals, New York, which discusses the dangers from the use of wood alcohol

¹ Hamilton, Alice: Statement to the Commissioner of Labor Statistics.

² Von Jaksch: *Die Vergiftungen*, Vienna, 1916, p. 277.

³ Kobert: *Lehrbuch der Intoxikationen*, p. 600.

⁴ Goldsmith: *Weyl's Handbuch*, 8, 830.

⁵ Lewy, E.: *Medizinische Chirurgische Rundschau*, 1891, p. 508.

⁶ Horbaczewski: The damage to health from the industrial employment of alcohol denatured with wood spirit, *Das Oesterreichische Sanitätswesen*, 1911, 23, 69, referred to by Hamilton (footnote 1, p. 4).

⁷ Wood, C. A.: Death and blindness from methyl or wood alcohol poisoning, *Journal American Medical Association*, Nov. 30, 1912, p. 1962.

in liquors and various preparations offered to the public. After citing a number of cases in which poisoning occurred from such use of wood alcohol, the authors reached the following conclusions:

It is important to note that the refined wood alcohol, in addition to being used as a diluent of whisky, is frequently used in the preparation of essence of peppermint, Jamaica ginger, lemon extract, punch, cologne, liniments, Florida water, bay rum, witch-hazel, and in the arts in lacquers, varnishes, etc.

Physicians and health officers should warn the public of the dangers existing in the preparations of the kind enumerated above when applied to or introduced directly or by inhalation into the body. European authorities have shown that the denatured ethyl alcohol serves every purpose in medicine and in the arts as well as wood alcohol or better. We suggest, therefore, that legislation be enacted bringing about the prohibition of the sale of wood alcohol for domestic purposes, similar to laws now obtaining in England and Germany.

DISEASES OF OCCUPATIONS IN GREAT BRITAIN DURING 1917.

A summary of the cases of diseases of occupations, and deaths resulting therefrom, in Great Britain during 1917; and also, for comparative purposes, during 1916, is presented in the January issue (p. 24) of the Labor Gazette, published by the Ministry of Labor. It shows that the total number of cases of poisoning and of anthrax reported to the Home Office under the Factory and Workshop Act during the year ending December 31, 1917, was 650, of which 82 (12.6 per cent) resulted fatally; in 1916, 13.8 per cent of the cases reported resulted fatally. In addition to these cases, 57 cases of lead poisoning (including 18 deaths) among house painters and plumbers came to the knowledge of the Home Office during 1917. The following table gives an analysis of all these cases and the fatalities resulting:

CASES OF DISEASES OF OCCUPATIONS, AND FATALITIES RESULTING THEREFROM, IN GREAT BRITAIN DURING 1916 AND 1917.

Occupational disease.	Number of cases.			Number of deaths.		
	1916	1917	Per cent of decrease.	1916	1917	Per cent of decrease.
Lead poisoning:						
Factories and workshops.....	348	317	8.9	21	21	.....
House painting and plumbing ¹	72	57	20.8	20	18	10.0
Arsenic poisoning.....		30			5	.....
Mercurial poisoning.....	18	17	5.6			.....
Phosphorus poisoning.....	2	3	50.0			.....
Toxic jaundice.....	206	190	7.8	57	44	22.8
Anthrax.....	105	93	11.4	16	12	25.0
Total.....	751	707	5.9	114	100	12.3

¹ Not reported under the Factory and Workshop Act.

* Increase.

HOUSING AND WELFARE WORK.

ADMINISTRATION AND COSTS OF INDUSTRIAL BETTERMENT FOR EMPLOYEES.

BY ANICE L. WHITNEY.

In the numbers of the MONTHLY REVIEW covering the period from September, 1917, to the present issue, articles dealing with different aspects of the work for the improvement of working and social conditions for employees have been published. The present article treats of the methods of carrying on such work, the costs to the employer, and the effect of the work on the efficiency and stability of the force in the different establishments visited.

COST TO THE EMPLOYERS OF BETTERMENT ACTIVITIES.

It was found in this particular phase of the welfare study that it was difficult to get very exact information, both on the costs and on the comparison of the present conditions with those prevailing before service work for the employees began. It was rather surprising to find that few firms had definite knowledge of what the work was costing them. In the majority of cases, even with a fairly well organized department, no separate record of the expenditures was kept, and in those establishments which were able to give the amounts expended, there was so much diversity in the forms of welfare work for which the figures were given that it is difficult to make a comparison or arrive at very definite conclusions as to the outlay which might be considered to be a reasonable one. The costs, as given, vary from a fraction of 1 per cent to 5 per cent of the total annual pay roll. In those cases where the allowance is as high as 4 and 5 per cent, the costs of the pension or group insurance plans and the contribution to the benefit associations or the maintenance of an expensive clubhouse form a large part of the expense. It seemed, taking into consideration the scope of the work in relation to the costs, as reported by the different companies, that excluding unusual contributions to these features a fairly comprehensive program could be maintained for about 2 per cent of the annual pay roll. Another element to be taken into consideration in this matter of costs is the degree of participation of the employees. Those examples of welfare which cost the firms the most are not necessarily the most successful, since advantages are appreciated by most people in measure as they give

to them, both of money and effort. The company which, while encouraging and aiding such work, still leaves a share in both the management and the expense to the employee is probably nearer to harmonious plant relations than the employer who gives lavishly but administers the work in a more or less paternalistic spirit.

The following table shows, by industries, the number of establishments scheduled and their employees, the administration of the welfare work, and its effect in regard to the time lost and the stability of the labor force:

ADMINISTRATION OF WELFARE WORK AND ITS EFFECT UPON TIME LOST AND STABILITY OF THE FORCE, BY INDUSTRIES.

Industry.	Number of establishments.	Number of employees.	Welfare work administered by—		Establishments having—		Establishments reporting as to effect of welfare work upon—			
			Employer alone.	Employer and employees jointly.	Outside agencies co-operating.	Welfare secretary employed.	Time lost.		Stability of force.	
							Improvement.	No change.	Improvement.	No change.
Automobiles.....	9	95,683	6	3	3	3	5	1	2	2
Boots and shoes.....	5	23,930	1	4	1	1	3	.....	3	.....
Chemicals and allied products.....	7	13,539	2	5	3	3	4	1	3	1
Clothing and furnishings.....	13	19,498	3	10	8	10	6	.....	6	.....
Electrical supplies....	5	51,040	1	4	2	1	2	1	1	2
Explosives.....	5	36,030	2	3	4	4	2	.....	2	.....
Fine machines and instruments.....	8	25,326	2	6	2	2	3	.....	3	.....
Food products.....	15	¹ 17,638	12	3	6	3	8	.....	5	1
Foundries and machine shops.....	49	143,882	28	21	12	16	18	6	18	8
Gas and electric light and power.....	10	² 27,102	1	9	1	2	2	2	2	1
Iron and steel.....	³ 40	213,143	33	7	12	9	15	2	9	4
Mining, coal.....	12	34,807	7	5	4	1	6	3	3	6
Mining, other than coal.....	12	25,448	5	7	5	2	6	.....	7	.....
Offices.....	9	13,814	2	7	.....	3	2	1	1	1
Paper and paper goods.....	7	9,174	3	4	3	2	6	.....	3	1
Printing and publishing.....	10	12,769	5	5	3	4	4	.....	4	.....
Railroads, electric....	17	60,642	6	11	3	4	6	2	5	2
Railroads, steam.....	10	393,583	4	6	8	1	2	1	2	1
Rubber and composition goods.....	9	42,847	5	4	3	6	4	1	3	.....
Stores.....	47	125,148	17	30	20	30	18	2	10	3
Telegraph and telephone.....	³ 15	¹ 66,447	14	1	2	8	2	.....	3	.....
Textiles.....	60	71,221	41	19	31	16	21	2	22	2
Other industries.....	57	¹ 138,793	31	26	18	10	15	4	19	3
Total.....	431	1,661,504	231	200	154	141	160	29	136	38

¹ Not including 1 establishment, not reported.

² Not including 2 establishments, not reported.

³ Individual plants of 1 corporation have been counted as separate establishments.

⁴ Not including 5 establishments, not reported.

COMPARISON OF PRESENT CONDITIONS WITH THOSE PREVAILING BEFORE WELFARE WORK BEGAN.

The date of the beginning of welfare work, as reported by many of the firms, is somewhat misleading. Many firms had an employees' benefit association long before any other work of this character was even thought of, and to accept the dates given by these firms would give an entirely erroneous idea of the length of time over which the movement extends. It is safe to say, that with the exception of a comparatively few of these establishments, the major part of the progress along these lines would extend over only the last 10 or 12 years. The emergency hospital work, for example, has been introduced or extended in many of the hazardous industries since the passage of the various State workmen's compensation laws. The work along the lines of safety and sanitation also has been much influenced by these laws and has grown with amazing rapidity in the last few years. The increase in the number of firms providing a pension system for their employees has been very marked in the last seven years, and group insurance has developed entirely since 1911.

In spite of the fact that so much of this work is comparatively recent, it will readily be seen that, owing to the abnormal labor conditions of the past three years, it was very difficult to obtain from the companies a comparison of present conditions with those prevailing before welfare work was undertaken. The extent to which the output is affected by the welfare work is difficult to determine, both because of the present unusual labor conditions and the fact that few companies had made any study of this point. A few firms, however, gave it as their opinion that the output had been increased by it, although several of these stated that this improvement was only in part due to the welfare work. Quite a number stated that their increased output was due to a reduction in the working hours, a form of welfare which has not been given special consideration in this report.

The stability of the force also has been much affected in many plants by present labor conditions. One hundred and thirty-six of the establishments scheduled reported an improvement in this regard, due in whole or in part to the betterment activities. In many cases this was more than a mere expression of opinion, since many employers have, of late, been impressed with the fact that a large turnover is a very important item in the cost of production, and have been seeking to reduce this turnover by more scientific management of the employment departments and by the introduction of welfare features. One firm which had compiled statistics in regard to the reduction in the turnover had an increase of 13.4 per cent of employees of more than two years' service in 1916 over a similar group for 1914, due entirely, so the management stated, to their welfare work.

One hundred and sixty of the establishments reported an improvement in the time lost. There are probably two reasons for this: One is the work of the emergency hospitals, which care for the general health of the employees and do much preventive work, as well as sort out those most undesirable physically through their examinations on entrance; the other is the installation of safety devices and the education through safety lectures and literature, which has resulted in a large reduction in the time lost through industrial accidents.

Even though only a small proportion of the companies reported on this subject, still enough have done so to prove that welfare work does have an appreciable effect upon the work and health of the employees. It would be reasonable to suppose, even without the confirmation of such reports, that all service work which is carried on in such a spirit that it results in a more contented force, as well as a healthier one, must have the effect of making the employees more stable and more efficient. Another proof of this is found also in the attitude toward welfare work, even of those employers who are least in sympathy with it, for there is an apparent realization among them that much of this work is becoming necessary in order to get and retain a desirable class of employees.

ADMINISTRATION OF WELFARE WORK.

It will be found that the administration of this work is by employers alone in slightly more than half of the cases. This also probably gives a somewhat wrong impression, since there are necessarily many firms reported which do not do a great deal along these lines. The companies which do the least are those most likely to control entirely such features as they have, partly because the kinds of work first introduced are usually those which naturally remain under the immediate direction of the firm, and partly because it usually takes some experience in order to realize the desirability of giving the employees an active part in the conduct of the welfare activities.

It is natural that the employer should direct the work of the emergency hospital, although there are a number of cases where this has been given over to the benefit association; similarly several firms allow their employees to manage the lunch room, either on a cooperative basis or using the profits for either the benefit or the athletic associations. The employees quite frequently have a voice in the management of the club rooms or houses, in several instances being given entire control of the clubhouse. In the matter of athletics and recreation, more often the employer plays a passive part, assisting financially, and also providing rooms for meeting purposes, gymnasiums, and athletic fields. The work among families, except what is done in connection with the benefit association, is entirely under

the direction of the companies through the medium of the welfare secretary or visiting nurses. The administration of the benefit associations is in most cases either mutual or in the hands of the employees. Pension and group insurance funds, being in most cases provided by the firms, are therefore administered by them, as is much of the educational work, although frequently members of the force assist in teaching, especially in the classes in English for foreigners.

Mention must be made of one conspicuous and well-known example of cooperative management by the firm and its employees of both the business and the welfare organization. It has been the policy of this company in increasing degree through the past quarter of a century to give the employees a share in the management. An association of the employees is maintained, to which every employee belongs. The affairs of this organization are conducted by a group elected by the employees, and this executive body has the power to make, change, or amend any rule that affects the discipline or working conditions of the employees. This can be carried even over the veto of the management by a two-thirds vote of all the employees. This association is also represented by 4 members out of 11 on the board of directors of the corporation. All the parts of the welfare organization have been carefully built up and are controlled and managed by the council of the association through committees. The firm contributes club and business rooms, certain salaries, and any other assistance necessary. The fundamental principle followed by the club in the management, however, is that these activities shall be in the main self-supporting and that financial or other assistance rendered by the firm shall receive a direct return from the employees in increased efficiency. There is no doubt that in this particular instance the generous and broad-minded policy of the firm is reflected in the very unusual personal interest in the business which is evidenced by the employees as a whole.

COOPERATION WITH OUTSIDE AGENCIES.

Employers cooperate frequently for the betterment of their employees with certain established outside agencies, such as the local school boards, the Y. M. C. A., and the Y. W. C. A. In the North and West the continuation school work is often carried on beyond the requirements of the law, and several companies also cooperate with the public schools in their apprenticeship courses. In the South the public school terms are often extended many months each year through the contributions and assistance of the companies. The Y. M. C. A. and the Y. W. C. A. also serve as the medium through which the employers carry on the club work for employees, as in the case of most railroad companies which use the Y. M. C. A.,

since it is so well organized and seems particularly to fill their needs. In a few other instances firms have established their own branches of these organizations or pay membership fees for junior employees in the city branch. In many instances either one or both of these organizations, with the sanction of the company, conduct meetings for employees in the plant. In one western city an association of several of the nursing and charitable organizations does much welfare work for employees and their families in the different industries. This association is supported by voluntary contributions, and recently all the principal industries in the city except one agreed to pay 5 cents per month for each employee in return for which the association cares for any cases to which the employer calls its attention.

EMPLOYMENT OF WELFARE SECRETARY.

In 141 cases it was found that a welfare secretary was employed. Very often the secretary's sole duties are supervising the various welfare activities. In other cases the employment and welfare departments are merged into one, part of the time of the manager being given to each, and in still other instances the doctor or head nurse assumes these duties in addition to the hospital work. In quite a number of instances the welfare department employs a corps of trained workers. One large department store has, in addition to its medical department and welfare secretary, a number of college women engaged in educational work, physical culture, and dancing, as well as supervising the library and the girls' clubhouse. Another company which does much community work has, in addition to the head worker, seven others, teachers, librarian, and a visiting nurse who have kindergarten, manual training and other classes, many clubs among both young and old, and also have much general supervision of the townspeople, of whom many are foreigners.

The duties of a welfare secretary are many and varied. She frequently must oversee the work of the emergency hospital, see that the food served in the lunch room is kept up to the standard, and that the kitchens are kept in a sanitary condition, and look after many of the details of sanitation; she often has charge of the library unless it is sufficiently large to require one or more special attendants; her office is so placed that she has a view of the rest and recreation rooms, and in some plants, of the cloakrooms. Often, in cases of special need, she visits the homes, and a number of instances were found where the firm had placed a sum of money at her disposal, to be used at her discretion, in special cases of illness or distress among the employees or their families. In the larger cities there is a great deal of cooperation among those serving different firms in this capacity, in the way of exchange of ideas, and the visiting nurses'

association also is utilized often to help out in cases of illness in families. The State factory inspectors suggested to certain establishments, in one large city, which had not yet taken up any work of this sort, that they should allow an experienced woman to start the work for them. This woman, feeling that this particular city was well equipped to do the necessary educational and recreational work, did not include such work in her program, but confined herself to the installation of rest rooms, emergency rooms, and lunch rooms. Even when little space was available she utilized it until such time as the firm could provide more. Two or three months were spent in each plant getting the work under way, when it was turned over to a competent woman, and the same thing begun in another establishment. This particular welfare worker was able to interest the employers, since she believed that production is increased and labor turnover decreased by the introduction of this work.

CONCLUSION.

One might conclude that all welfare secretaries are women since they have been cited especially. In the majority of cases this is true, but in a number of instances this department, especially in those industries employing only men, is managed by a man. In either case the opportunity which is presented for a very broad and helpful service to the employees is very great. It is a difficult position to fill, since, if the policy pursued is not a liberal and broadminded one, the employees may feel that the position is being used to their disadvantage, but if, on the other hand, the one who holds it is gifted with sympathy and tact, the possibilities for help and encouragement of all kinds are almost unlimited.

LOW-COST HOUSING IN AMERICA.¹

How to meet at low cost the requirements of housing which shall be adequate in point of shelter, sanitation, provision for family life, and esthetic pleasure is the subject of a pamphlet recently issued from the Department of Social Ethics of Harvard University. It describes plans of one-family and semidetached houses actually constructed for approximately \$2,000 per dwelling. It is confined largely to examples of work done by employers, the data having been secured by correspondence with the companies.

The study emphasizes that the suggestions presented in regard to comparative costs of the houses of different types and materials are to be considered as "merely suggestive, and are not entitled to carry

¹ Low-cost cottage construction in America; a study based on the housing collection in the Harvard Social Museum, by Winthrop A. Hamlin. Cambridge, Mass., Harvard University, 1917. (Publications of the Department of Social Ethics, No. 7). 30 pp. 4 charts. Illus.

the weight of authority." Among the conclusions arrived at are: That shingled houses are more expensive than clapboards; brick about 7 per cent more expensive than frame (clapboarded), and stucco on metal lath about 3 per cent more expensive than frame. Data on concrete is too scant to make any estimate.

Frame construction seems likely to decrease because of the generally increasing cost of lumber as compared with that of clay and cement products, and because of the fire risk and high maintenance cost of frame houses. But in many localities wood still remains cheaper than other building materials. It will also tend to be used wherever social changes are occurring so rapidly that a more permanent type of dwelling would be an unprofitable investment. Brick is to be recommended wherever local conditions are such that it can be cheaply secured. Hollow tile is in somewhat the same class, though requiring further development before its possibilities can be fairly judged. Concrete, especially "poured" concrete, is of value chiefly in large-scale housing undertakings, though of course the steel forms once bought can be used to pour one house or a hundred. The progress of stucco depends especially on the certitude of good workmanship in its use.

The following paragraph suggests the author's ideas as respects the planning of low-cost cottages:

The plan of the cottage centers around the kitchen, and indeed the necessary size of the kitchen may be said to mark—inversely—the social progress of the worker's family. This evolution, however, takes different forms in various sections of the country, so that the following outline of it can claim to be only a general suggestion. When the family income averages about \$10 or less per week the wife usually has all her time consumed in cooking, washing, caring for the children, and doing outside washing or going out herself to work; in such homes the kitchen is perforce the family living room, and should be made proportionately ample. * * * Roughly speaking, when the weekly income approaches \$18, while the family may eat in the kitchen, they want a "best room" in which to receive callers, actual or hoped for. In families of a higher income class, the housewife is quite willing to carry food and dishes into the dining room in order to escape eating the food in the place where it was cooked; also a separate dining room is deemed more comfortable by the rest of the family. If there are only two rooms besides the bed rooms, families with low incomes are more likely to combine the dining room with the kitchen, leaving the other room for a parlor; as the income rises the living room assumes increased importance, absorbing the dining room when necessary. * * * Much might be written on the psychology of the parlor. Often, particularly in the country, the "best room" has become so lifeless as compared with the kitchen or with a separate living room that it is little more than a mausoleum of family culture. One may not enjoy being there, but the possession of such a room nevertheless tends to elevate the family life.

HOUSING CONDITIONS IN ST. PAUL, MINN.¹

A preliminary survey of housing conditions in a selected area is now recognized as a first step to the enactment of laws which shall correct evil conditions and establish a better standard of housing. A survey of housing conditions in St. Paul, Minn., has recently

¹ Housing conditions in the city of St. Paul. Report presented to the housing commission of the St. Paul Association by Carol Aronovici, Ph. D., director of Social Service, Amherst H. Wilder Charity. 120 pp.

appeared. Some of the more salient features of that report are here summarized.

Certain districts of the city where conditions were the worst were selected for investigation. The population of these districts numbered 18,425. If there is eliminated from that number 3,548 of mixed and unknown nationalities it appears that 36 per cent were either American or of other nationalities ordinarily considered as of desirable character, i. e., nationalities with high standards of living. Of the total number, 15 per cent were Jews. Considering a total of 3,626 dwellings, 69 per cent were rented by the occupants and 31 per cent owned. The largest percentage of ownership (58) was found among the Bohemians, and the lowest percentage among the English. The highest proportion of renters (87 per cent) was also among the English. In general, home ownership is more prevalent among the Jews, Italians, Germans, and Scandinavians than among the Americans.

Out of a total of 4,248 apartments studied, 44 per cent were one-family houses and 56 per cent multiple dwellings. No great congestion was found in the houses of either class, and while some instances of serious crowding were found they were limited mainly to abnormal dependent families with low standards of living.

Single dwellings were in poor repair in greater proportion than the multiple dwellings, due to the greater proportion of single dwellings of old construction. It is not the habits and standards of life of the people that are responsible for bad housing conditions in St. Paul, Minn., but rather structural defects of new buildings and the low standard of construction observed in the earlier days.

The investigation disclosed that there was no shortage of homes although there is a lack of better-class houses to meet the needs of wage-earning families.

Among the more serious evils may be mentioned the construction of toilets for use in common by from 2 to 10 families. The lodger evil is described as much less acute in St. Paul than in eastern cities.

There was found a considerable amount of bad lighting and ventilation and many dark rooms in the homes covered by the study, largely because of the poor arrangements of lots, the unscientific placement of buildings, the uncontrolled heights of buildings, and absence of regulation regarding distances between walls.

From the statistics collected it would seem that the two-family house represents a better investment than either the single dwelling or the tenement or multiple dwelling.

The report suggests the desirability of securing open spaces for parks and playground purposes within the area covered by its investigation. It points out in this connection that 16 per cent of the land area in the section studied is unoccupied.

The recommendations of the committee embrace suggestions for the drafting of a housing code; the establishment of a housing bureau devoted to the work of removing families to better houses and improved surroundings, keeping in touch with social agencies regarding sanitary conditions, and to act as a means of checking up the work of health inspectors, building and plumbing inspectors, and other officials; the socialization of rent collecting, i. e., the provision of cooperative rent collecting by real estate dealers and agents with a social service worker in charge of the collection of rents; and finally, the creation of a planning and zoning commission in order to provide the city with a careful plan for future growth.

The hotels and lodging houses are given special consideration and attention is called to the lax enforcement of existing laws which in themselves are sufficient if properly administered.

The preparation of this report was under the direction of Dr. Carol Aronovici, and was made possible by the Amherst H. Wilder Charity Foundation. The report is illustrated to show some of the more undesirable conditions found in back yards, toilets, and outhouses.

WAR HOUSING AND THE AMERICAN INSTITUTE OF ARCHITECTS.

The board of directors of the American Institute of Architects at its meeting in Washington, January 17, 1918, adopted the following resolutions:

WHEREAS, It is the belief of the board of directors of the American Institute of Architects that the question of providing within the shortest possible time a supply of workmen's houses such as will reduce the present waste in labor turnover, relieve the intolerable congestion, and provide good living conditions for workers, has for months been the gravest menace to the safety of the Nation and has now become vitally necessary to the victorious conclusion of the War, and

WHEREAS, The manner in which such relief is provided will not only determine the measure of our effort to increase the present volume of industrial production, but will profoundly affect the economic and social life of the Nation in the future; be it

Resolved, That the board of directors of the American Institute of Architects, at their meeting held in Washington on January 17, 1918, submit to the President of the United States, the Congress, the Labor Council, and the Shipping Board the following recommendations as expressing their belief in those essential features which should govern the whole program of industrial housing.

(a) The duly constituted authorities should have the right to take land for this purpose.

(b) Powers to survey needs for housing facilities and to determine, in cooperation with a central priority board, the relative importance of industrial operations.

(c) Powers to design and construct communities where the needs of such have been made evident by the survey.

(d) Powers to operate and manage these communities during the War and for a period of years thereafter.

(e) Powers to maintain a high standard of physical well-being in munition plants (adopting the standards set by our most progressive industrial corporations) and to organize community activities within the communities thus created; and be it further

Resolved, That as the ultimate disposition of these communities with the least loss and the greatest good to the Nation can not at this time be determined, there be created a commission to consider and report upon the following within a fixed period after the War:

(a) The basis upon which such communities could be transferred to municipalities or local limited dividend corporations.

(b) The organization of local limited dividend corporations to manage and develop the communities created during the War.

(c) The establishment of that part of the cost which should be written off as belonging to the cost of War.

(d) The methods of saving the appreciation of land values for the benefit of the community as a whole.

INDUSTRIAL CONDITIONS IN FOREIGN COUNTRIES.

INDUSTRIAL CONDITIONS IN JAPAN, 1915.¹

From 1907 to 1914, with the exception of 1909, the value of imports in Japan exceeded that of exports. But in 1915 and 1916 exports exceeded imports by 33 and 49 per cent, respectively. Exports in 1907 amounted to 432,412,873 yen (\$215,514,576), and in 1916 to 1,127,468,118 yen (\$561,930,110), an increase over 1907 of 160 per cent. Imports for these years amounted to 494,467,346 yen (\$224,014,525) and 756,427,910 yen (\$377,003,670), respectively, an increase of 68.3 per cent. In 1907 the value of exported silk, cotton, and other tissues, yarns, etc., clothing, and accessories was 229,100,134 yen (\$114,183,506) and in 1916 579,187,551 yen (\$288,667,075), an increase of 152.8 per cent.

Industry has developed in the last few years to a phenomenal degree. The economic conditions resulting from the war have produced a large demand for manufactures. Recent industrial activities have been adequate to the demand. Increased markets have been found, not only in Europe, but in the Far East, Australia, South Africa, and South America. The value of exports to the United States has increased from 125,964,408 yen (\$62,751,861) in 1906 to 340,244,817 yen (\$169,578,017) in 1916, an increase of 170.2 per cent.

The following table has been prepared to show the relative importance of the various groups of principal manufactures based upon number of employees and value or quantity of products, 1906, 1910, 1915.

¹ The Seventeenth Financial and Economic Annual of Japan, 1917.

NUMBER OF PERSONS EMPLOYED AND VALUE OF PRODUCTION IN SELECTED BRANCHES OF INDUSTRY, 1906, 1910, AND 1915.

Industry.	Number of employees.			Volume or value of products.		
	1906	1910	1915	1906	1910	1915
Cotton yarn.....	72,313	91,519	124,845	¹ 190,917	¹ 233,117	¹ 352,554
Woven goods (silk, cotton, hemp, and mixed).....	792,491	761,309	715,343	\$110,918,419	\$143,329,952	\$189,455,856
Japanese paper.....	² 61,262	² 54,917	² 47,232	7,718,561	9,859,309	11,162,016
European paper.....	5,552	6,491	9,032	6,800,857	8,176,569	14,807,220
Matches.....	24,189	17,985	21,357	7,733,663	6,285,075	11,349,963
Porcelain and earthenware.....	28,257	30,839	32,302	6,671,573	6,613,766	8,738,072
Mats and mattings.....	³	³	³	4,836,361	4,801,334	4,035,726
Camphor and camphor oil.....	² 1,617	² 2,615	² 4,239	349,443	530,492	878,124
Lacquered ware.....	16,693	17,750	20,101	3,393,907	3,920,305	4,873,360
Straw-plaits, wood-chip, and hemp braid.....	² 75,376	337,037	185,455	⁴ 2,357,510	⁴ 3,278,574	⁴ 4,706,646
Knitted goods.....	⁴	⁴	⁴	3,388,688	4,194,952	15,325,153

¹ Tons.² Number of families.³ Not reported.⁴ Not including value of hemp braid.⁵ Including value of hemp braid.

In the preceding table the value of production can hardly be considered as a basis for estimating industrial activities, since values have been largely influenced by the increased prices of manufactured products during 1914 and 1915. Data relative to quantity of articles produced are lacking in many cases, and the only available basis upon which increased activities can be estimated with any degree of correctness is the volume of employment. The quantities of a few articles of manufacture are reported, however, and show in a general way the extent of increased production. The quantity of cotton yarn manufactured increased from 46,188,000 kwan (190,918 tons) in 1906 to 85,288,000 kwan (352,538 tons) in 1915. While the quantity of Japanese paper manufactured in 1915 is slightly below that reported for any year since 1908, the quantity of European paper increased from 107,216 tons in 1906 to 249,254 tons in 1915.

The number of stock and partnership companies engaged in industrial undertakings increased from 2,546, with a paid-up capital of 267,118,424 yen (\$133,131,823) and a reserve amounting to 64,521,819 yen (\$32,157,675), in 1906, to 5,489 companies, with a paid-up capital of 879,540,314 yen (\$438,363,892) and a reserve of 113,383,586 yen (\$56,510,379), in 1915.

Wages for the years 1905, 1909, and 1914 are shown in the November issue of the MONTHLY REVIEW, page 149. They have varied but little in 1913, 1914, and 1915, but there has been a gradual increase year by year during the last 10 years.

The following table gives the actual average daily wages of working people and relative wages for 1915, those paid in 1900 being used as a base for computing relative wages.

AVERAGE AND RELATIVE DAILY WAGES OF EMPLOYEES IN SPECIFIED OCCUPATIONS, 1915.

Occupation.	Average daily wages in 1915.		Occupation.	Average daily wages in 1915.	
	Amount.	Relative wages (1900=100).		Amount.	Relative wages (1900=100).
Agriculture, etc.:			House building, etc.—Concd.		
Farm laborer, male.....	\$0.23	153.3	Sawyer.....	\$0.41	156.6
Farm laborer, female.....	.14	152.6	Shingle roofer.....	.43	168.6
Sericultural laborer, male.....	.23	148.4	Tile roofer.....	.50	171.2
Sericultural laborer, female.....	.13	142.1	Bricklayer.....	.52	166.7
Silk spinner, female.....	.16	165.0	Brickmaker.....	.37	164.4
Gardener.....	.41	162.7	Shipwright.....	.48	153.6
Fisherman.....	.29	151.2	Floor-mat maker.....	.39	168.1
Clothing, etc.:			Screen and door maker.....	.38	151.0
Weaver, male.....	.23	139.4	Paper hanger.....	.39	158.0
Weaver, female.....	.15	150.0	Instruments, etc.:		
Dyer.....	.26	179.3	Cabinetmaker.....	.38	154.0
Cotton whipper.....	.23	127.0	Cooper.....	.34	158.1
Tailor (for Japanese dress).....	.34	176.9	Cartwright.....	.35	151.1
Tailor (for European dress).....	.42	142.4	Harness maker.....	.36	153.2
Pouch maker.....	.31	143.2	Lacquerer.....	.34	146.8
Clog (wooden shoes) maker.....	.29	147.5	Jeweler.....	.32	152.4
Shoemaker.....	.36	155.3	Founder.....	.35	148.9
Food, drink, etc.:			Blacksmith.....	.34	143.8
Soy maker.....	¹ 5.75	185.7	Potter.....	.33	173.7
Brewery hand.....	¹ 9.04	166.3	Miscellaneous:		
Confectioner.....	.23	156.7	Oil presser.....	.29	163.9
Tobacco cutter.....	.34	160.5	Paper maker.....	.22	140.6
Rice pounder.....	.20	136.6	Compositor.....	.30	174.3
House building, etc.:			Printer.....	.27	161.8
Carpenter.....	.42	155.6	Day laborer.....	.27	148.6
Plasterer.....	.42	157.4	Male servant.....	¹ 2.48	184.1
Stonecutter.....	.49	160.7	Female servant.....	¹ 1.56	200.6

¹ Monthly wages.

In 1915 the wages of farm laborers employed under yearly contract differed but little from those paid in 1914. Male farm laborers were paid in these years, on an average, yearly wages of 53.89 yen (\$26.84) and 53.70 yen (\$26.74) in the respective years, and female farm laborers, on an average, yearly wages of 32.18 yen (\$16.03) and 32.53 yen (\$16.20) in the respective years. In 1915 the relative figures, taking 1900 as a base, were 167.2 for male, and 190.7 for female laborers.

There were 161,425 operatives and apprentices, and 32,571 laborers employed in Government arsenals, machine shops, steel works, sail lofts, shipyards, etc. The average daily wages of male operatives and apprentices over 14 years of age, in 1915, varied from 56 sen (28 cents) in the printing bureau and forestry office to 81 sen (40 cents) in the military department. Daily wages of female laborers of the same age group, during the same year, varied from 27 sen (13 cents) in the monopoly bureau to 41 sen (20 cents) in the military department.

During the year ending December 31, 1916, the number of cooperative societies increased 244, the increase being confined almost exclusively to credit societies, or societies in which the function of

credit was an important feature. Societies for sale and those in which selling was one of the functions of operations decreased during the year. The different classes of cooperative societies, classified by kind of business for which organized, were shown in the REVIEW for November, 1917, page 150. The number in operation on December 31, 1915, was 11,509, and on December 31, 1916, 11,753.

Accident insurance is reported for 1912-13 to 1915-16. One company with a paid-up capital of 250,000 yen (\$124,500) issues this class of insurance only, and two other companies having a combined paid-up capital of 2,500,000 yen (\$1,246,000) issue accident insurance in connection with other lines of insurance. The number of contracts in force in 1912-13 was 6,079 and the amount of risk carried amounted to 9,226,040 yen (\$4,598,568). In 1915-16 there were 12,602 contracts in force, with risks amounting to 14,847,508 yen (\$7,399,998). Receipts have increased from 57,108 yen (\$28,463) in 1912-13 for the one company then in operation to 106,029 yen (\$52,845) in the year 1915-16, for the 2 companies, and during that period expenses increased from 52,624 yen (\$26,228) in the first-named year to 141,531 yen (\$70,539) for 1915-16.

The transactions of the post office savings bank show an increase from 5,848,498 deposits, amounting to 54,248,775 yen (\$27,015,890), on March 31, 1906,¹ to 12,700,105 deposits, amounting to 226,989,937 yen (\$113,131,785), on March 31, 1916. Of the total number of deposits reported in 1916, 4,334,623, amounting to 64,847,974 yen (\$32,320,230), were credited to agriculturists, and 933,607 deposits, amounting to 15,801,901 yen (\$7,875,667), were credited to operatives. The rate of interest on deposits was increased from 4.2 per cent to 4.8 per cent in April, 1915.

With the exception of 1914, there has been an increase each year in the amount of deposits, and with the exception of 1915 an increase in the number of deposits. During the period covered by the report the amount of deposits credited to operatives has increased nearly 400 per cent, an increase considerably greater than shown by any other class of depositors.

¹ The Sixteenth Financial and Economic Annual of Japan, 1916.

The following table is presented as showing the trend of prices of certain articles of food, etc., for specified years up to 1915:

AVERAGE AND RELATIVE PRICES OF 20 COMMODITIES IN JAPAN, 1906, AND 1912 TO 1915.

Article.	Unit.	Average prices.					Relative prices (1900=100).				
		1906	1912	1913	1914	1915	1906	1912	1913	1914	1915
Rice.....	Bu.....	\$1.41	\$2.06	\$2.11	\$1.55	\$1.25	128	180	185	137	110
Barley.....	do.....	.46	.85	.80	.55	.47	97	179	167	116	99
Rye.....	do.....	.74	1.29	1.15	.81	.73	123	214	196	135	122
Wheat.....	do.....	.87	1.13	1.16	1.09	1.12	112	145	148	140	144
Beans, Soja.....	do.....	.97	1.10	1.16	1.16	.92	118	134	141	142	113
Beans, red.....	do.....	1.16	1.45	1.61	1.64	1.27	127	158	176	179	138
Salt.....	do.....	.52	.50	.48	.52	.46	215	207	199	215	189
Soy.....	do.....	2.23	2.40	2.40	2.50	2.40	127	137	136	143	137
Sugar, white, domestic.....	Lb.....	.065	.075	.074	.075	.080	135	155	153	156	167
Sugar, white, foreign.....	do.....	.061	.080	.079	.080	.083	160	210	200	209	218
Sugar, brown, domestic.....	do.....	.045	.056	.055	.055	.056	129	158	157	158	158
Sugar, brown, foreign.....	do.....	.040	.057	.055	.055	.056	136	196	190	187	193
Tea.....	do.....	.179	.192	.192	.199	.188	130	138	139	144	136
Beef.....	do.....	.123	.107	.109	.109	.109	156	136	138	138	138
Eggs.....	Doz.....	.139	.157	.166	.166	.155	113	127	134	134	125
Milk.....	Qt.....	.119	.113	.113	.113	.110	95	90	90	90	84
Coal.....	Ton.....	4.20	3.80	3.99	4.16	3.90	133	120	126	131	123
Petroleum.....	Box, 2 cans	1.70	1.99	2.16	2.10	2.15	109	115	126	123	126
Charcoal.....	10 lbs.....	.048	.066	.068	.067	.066	91	122	123	126	125

Recent strikes are reported to have occurred in Japan, due to the demand of working people for increase in wages owing to the high cost of living.¹ Authentic index numbers show that the cost of living has increased materially since July, 1914. The prices of food and other commodities have advanced 66 per cent over those of that date, and 41 per cent over those of July, 1916. The strikes so far as reported had been short in duration, in most cases settlement being reached by an increase of 15 or 20 per cent in wages. "In the last session of the Japanese Diet an appropriation of 430,000 yen (\$214,312) was passed for increasing the wages of postmen, and since then the Government has decided to grant 2,700,000 yen (\$1,345,680) for increasing the wages of some 80,000 post-office officials, including postmen."

¹ See Labour Gazette (London), November, 1917, p. 402.

ARBITRATION AND CONCILIATION.

CONCILIATION WORK OF THE DEPARTMENT OF LABOR, JANUARY 16, 1918, TO FEBRUARY 15, 1918.

Under the organic act of the department, which gives the Secretary of Labor the authority to mediate in labor disputes through the appointment, in his discretion, of commissioners of conciliation, the Secretary exercised his good offices between January 15, 1918, and February 14, 1918, in 58 labor disputes. The companies involved, the number of employees affected, and the results secured, so far as information is available, were as follows:

STATEMENT SHOWING NUMBER OF LABOR DISPUTES HANDLED BY THE DE-
PARTMENT OF LABOR, THROUGH ITS COMMISSIONERS OF CONCILIATION
JAN. 15, 1918, TO FEB. 14, 1918.

Name.	Workmen affected.		Result.
	Directly.	Indirectly.	
Controversy, Miller Rubber Co. and machinists, Akron, Ohio.	25	2,000	Unable to adjust.
Strike, Washington Tin Plate Co., Washington, Pa.	180	.....	Adjusted.
Controversy, plumbers and steam fitters, Camp Park, Ark.	70	1,800	Pending.
Controversy, Charles Kronauer & Co., Harness and Saddlery Works, Chicago, Ill.	80	.....	Do.
Controversy, Durham Coal Co. and miners, Durham, Ga.	300	.....	Adjusted before commissioners' arrival.
Strike, Bartle Tent Co., Troy, N. Y.	800	.....	Commissioner learned plants closed permanently and contracts canceled.
Controversy, Kansas City Railways Co., Kansas City, Mo.	1,800	.....	Adjusted.
Controversy, Schluter Manufacturing Co. and sheet-metal workers, St. Louis, Mo.	.....	.....	Pending.
Threatened strike, boilermakers and helpers, contract shops and shipyards, Cleveland, Ohio.	245	2,730	Adjusted.
Controversy, agricultural workers and employers, Porto Rico.	.....	.....	Pending.
Controversy, Pacific Construction & Engineering Co., Seattle, Wash.	60	175	Adjusted.
Threatened strike, packing-house employees, Carstens Packing Co., Armour & Co., and two smaller concerns, Spokane, Wash.	350	500	Pending.
Strike, Pensacola Shipbuilding Co., Bay Point, Pensacola, Fla.	100	.....	Adjusted.
Controversy, Southern California Edison Co.	.....	.....	Pending.
Controversy, Wilkes-Barre Street Ry. Co., Wilkes-Barre, Pa.	130	240	Adjusted.
Strike, The Durant Pattern Co., Standard Pattern Works Co., Ideal Pattern Co., Great Lakes Pattern Co., Brost Pattern Co., Superior Pattern Works, General Model Pattern Works, Wellman Pattern Supply Co., and Whaling & Son Co., Edam Pattern Works, and J. Remesch Pattern Works, Cleveland Ohio.	125	25	Do.
Controversy, retail meat markets, Kansas City, Mo.	.....	.....	Do.
Strike, metal workers, 18 iron mills, New Orleans, La.	6,000	10,000	Do.
Controversy, Southern Railway Co. and clerks (entire system).	.....	.....	Pending.

STATEMENT SHOWING NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR, THROUGH ITS COMMISSIONERS OF CONCILIATION, JAN. 15, 1918, TO FEB. 14, 1918—Concluded.

Name.	Workmen affected.		Result.
	Directly.	Indirectly.	
Controversy, Atlantic Works and Boston Engineering Co. and plumbers, East Boston, Mass.			Commissioner reports controversy is jurisdictional and one that rightfully belongs to their respective unions.
Controversy, Remington Arms Co. and metal polishers, Eddystone, Pa.			Pending.
Strike, Foundry employees, Crown Pipe & Foundry Co., Jackson, Ohio.	60		Adjusted.
Controversy, Textile workers, Fall River, Mass.	30,000		Do.
Controversy, Sturtevant Co. and metal polishers, Boston, Mass.			Pending.
Strike, electrical workers, Detroit, Mich.	400	1,100	Unable to adjust.
Controversy, Ames Iron Co., Oswego, N. Y.			Pending.
Controversy, American Locomotive Co. and machinists, sheet-metal workers, steam fitters, etc., Schenectady, N. Y.	2,500	2,000	Adjusted.
Strike, machinists, Tennessee Coal, Iron & R. R. Co., Ensley, Ala.			Pending.
Controversy, stove manufacturers and metal polishers, Detroit, Mich.	100	200	Adjusted.
Controversy, laborers and helpers, Seaboard Air Line R. R. Co.			Pending.
Strike, Ohio Locomotive Crane Co. and Carroll Foundry & Machine Co., Bucyrus, Ohio.	100	300	Unable to adjust.
Controversy, machinists, Denver, Colo.			Pending.
Lockout, Penn Garment Co., Williamsport, Pa.	38		Adjusted.
Controversy, Chicago & Eastern Illinois R. R. Co. and maintenance of way employees.			Pending.
Strike, Canton Stamping & Enameling Co., Canton, Ohio.	460	40	Do.
Controversy, Jacksonville Terminal Co., Jacksonville, Fla.	70		Do.
Controversy, Woodward & Tiernan Printing Co. and bookbinders, St. Louis, Mo.			Do.
Controversy, street railway employees, St. Louis, Mo.			Adjusted.
Strike, electrical workers, Continental Can Co., Chicago, Ill.			Pending.
Controversy, Nickel Plate R. R. Co. and freight handlers and transfer men, Cleveland, Ohio.	110		Do.
Strike, molders, Nashua, N. H.			Do.
Controversy, meat packers and Master Butchers Association and Butchers' Union, Seattle, Wash.			Do.
Controversy, Bartlett & Haywood, Baltimore, Md.			Adjusted.
Threatened strike, Joplin & Pittsburg Ry. Co., Pittsburg, Kans.			Pending.
Strike, longshoremen, Southern Pacific R. R. Co. and steamship lines, New York.	1,100	2,500	Adjusted.
Controversy, pattern makers, Cincinnati, Ohio.			Pending.
Controversy, Savage Arms Co., Utica, N. Y.			Do.
Controversy, Atchison, Topeka & Santa Fe R. R. Co. and clerks, Chicago, Ill.			Do.
Controversy, Western Gas Co., Fort Wayne, Ind.			Do.
Controversy, Duluth shipyard, Superior, Wis.			Adjusted.
Controversy, Herf & Frerich Chemical Co., St. Louis, Mo.			Pending.
Controversy, Missouri, Kansas & Texas R. R. Co. and clerks, Fort Worth, Tex.			Do.
Controversy, Pennsylvania R. R. Co. and shop employees, St. Marys, Pa.			Do.
Controversy, butchers, Denver, Colo.			Do.
Strike, Grant Smith Shipyards, Portland, Oreg.			Do.
Threatened strike, asbestos workers in entire local asbestos working and insulating industries, Seattle, Wash.	25	50	Do.
Strike, Carstens Packing Plant, Tacoma, Wash.	150	300	Do.
Controversy, Empire Steel & Iron Co., Wharton, N. J.			Do.

The following cases noted in January 14 statement have been disposed of:

Strike, Connecticut Electric Steel Co., Hartford, Conn. Unable to adjust.

Strike, box makers and sawyers, Chicago, Ill. Adjusted.

Threatened strike, Wabash Railroad, railway clerks. Adjusted.

Strike, electrical workers, Casper, Wyo. It developed that power companies claimed they could not afford to pay increases demanded; discontinued wiring business and would not require services of men any longer.

Controversy, Chicago, Terre Haute & Southern Railroad Co., Terre Haute, Ind. Adjusted.

Controversy between Associated Weighmasters' & Scalesmen's Union and United Weighers Association. Adjusted.

Controversy, stationary firemen, Lowell, Mass. Adjusted.

Controversy, Fairbanks, Morse Co. and its pattern makers, Beloit, Wis. Adjusted.

Controversy, American Steel Foundry Co. and iron molders, Granite City, Ill. Adjusted.

Controversy, electrical workers, Pittsfield, Mass. Adjusted.

Controversy, Chicago, Peoria & St. Louis Railroad Co. and mechanical force, Springfield, Ill. Adjusted.

Controversy, Chicago, Burlington & Quincy Railroad Co. and car-service men, Beardstown, Ill. Adjusted.

Controversy, Scholl Manufacturing Co. and metal polishers, Chicago, Ill. Adjusted.

Controversy, Dayton Steel Foundry Co. and molders and car makers Dayton, Ohio. Unable to adjust.

Controversy, Toledo Shipbuilding Co., Toledo, Ohio. Adjusted.

Controversy, Allyne-Ryan Foundry Co. and pattern makers, Cleveland, Ohio. Adjusted.

Controversy, Delta Electric Co., Marion, Ind. Adjusted.

Controversy, Busch-Diesel-Sulzer Manufacturing Co. and pattern makers, St. Louis, Mo. Adjusted.

Controversy, Clark Bros. Co. and molders, Olean, N. Y. Commissioner reports no trouble prevalent at plant of Clark Bros.; company operating harmoniously; manager claims company has all help desired.

Controversy, Nash Motors Co. and pattern makers, Kenosha, Wis. Adjusted.

IMMIGRATION.

IMMIGRATION IN NOVEMBER, 1917.

The number of immigrant aliens admitted to the United States during the year 1916 was 355,767, as compared with 258,678 for the year 1915, an increase of 97,089, or 37.5 per cent. There was also an increase from month to month during 7 of the 12 months in 1916. During 1917 the figures for the first three months show a considerable decrease from month to month. The decrease from the preceding month for January, February, and March, 1917, is 19.9, 22.3, and 19.4 per cent, respectively. For April, however, the number of immigrant aliens admitted shows an increase of 32.3 per cent over the number admitted in March. As compared with April, the figures of May show a decrease of 48.9 per cent. The figures for June indicate an increase of 5.5 per cent over those for May. During July only 9,367 immigrant aliens were admitted. As compared with figures for July, those for August show an increase of 7.3 per cent. In September the number fell to 9,228, or 139 smaller than the number admitted in July. As compared with August the figures for September show a decrease of 8.2 per cent. In October there was an increase over the September arrivals of 57, or 0.6 per cent. The admissions in November numbered only 6,446, a decrease of 30.6 per cent from the number admitted in October. These facts are brought out in the following table:

IMMIGRANT ALIENS ADMITTED INTO THE UNITED STATES IN SPECIFIED MONTHS,
1913 TO 1917.

Month.	1913	1914	1915	1916	1917	
					Number.	Per cent increase over preceding month.
January.....	46,441	44,708	15,481	17,293	24,745	1 19.9
February.....	59,156	46,873	13,873	24,740	19,238	1 22.3
March.....	96,958	92,621	19,263	27,586	15,512	1 19.4
April.....	136,371	119,885	24,532	30,560	20,523	32.3
May.....	137,262	107,796	26,069	31,021	10,487	1 48.9
June.....	176,261	71,728	22,598	30,764	11,095	5.5
July.....	138,244	60,377	21,504	25,035	9,367	1 15.6
August.....	126,180	37,706	21,949	29,975	10,047	7.3
September.....	136,247	29,143	24,513	36,398	9,228	1 8.2
October.....	134,440	30,416	25,450	37,056	9,285	.6
November.....	104,671	26,298	24,545	34,437	6,446	1 30.6
December.....	95,387	20,944	18,901	30,902	.....	.....

¹ Decrease.

Classified by races, the number of immigrant aliens admitted into and emigrant aliens departing from the United States during November, 1916 and 1917, was as follows:

IMMIGRANT ALIENS ADMITTED INTO AND EMIGRANT ALIENS DEPARTED FROM
THE UNITED STATES, NOVEMBER, 1916 AND 1917.

Race.	Admitted.		Departed.	
	November, 1916.	November, 1917.	November, 1916.	November, 1917.
African (black).....	729	496	244	156
Armenian.....	159	30	.....	196
Bohemian and Moravian.....	43	3	3	68
Bulgarian, Serbian, Montenegrin.....	76	10	2	252
Chinese.....	153	112	101	125
Croatian and Slovenian.....	32	5	15	1
Cuban.....	154	31	297	125
Dalmatian, Bosnian, Herzegovinian.....	.....	.....	.....	2
Dutch and Flemish.....	866	168	46	38
East Indian.....	9	12	83	4
English.....	3,604	820	614	1,140
Finnish.....	942	258	178	77
French.....	4,642	580	218	412
German.....	1,342	144	51	39
Greek.....	2,009	105	131	526
Hebrew.....	1,908	344	13	33
Irish.....	2,046	345	219	231
Italian (north).....	492	55	561	265
Italian (south).....	5,531	130	1,327	2,476
Japanese.....	741	776	112	131
Korean.....	15	20	13	5
Lithuanian.....	72	19	.....	3
Magyar.....	72	5	12	1
Mexican.....	1,683	84	56	58
Pacific islander.....	.....	.....	.....	1
Polish.....	283	52	5	205
Portuguese.....	173	58	325	521
Roumanian.....	40	9	5	9
Russian.....	408	119	542	196
Ruthenian (Russniak).....	94	5	.....	6
Scandinavian.....	2,576	736	503	140
Scotch.....	1,516	324	214	259
Slovak.....	33	2	1	38
Spanish.....	1,104	350	334	214
Spanish-American.....	160	127	50	90
Syrian.....	91	18	7	9
Turkish.....	102	.....	9	16
Welsh.....	98	11	20	11
West Indian (except Cuban).....	110	71	23	47
Other peoples.....	329	12	26	10
Not specified.....	.....	.....	804	.....
Total.....	34,437	6,446	7,164	8,136

PUBLICATIONS RELATING TO LABOR.

OFFICIAL—UNITED STATES.

CALIFORNIA.—*Industrial Accident Commission. Safety and Efficiency in Mines. Bulletin 2, May, 1916; Bulletin 3, October, 1916; Bulletin 4, February, 1917, each 15 pp.; Bulletin 5, Relating to safeguarding of a gold dredge, June, 1917, 23 pp.; Bulletin 6, Merit rating California mines for compensation insurance, June, 1917, 36 pp. Tentative safety rules for gold dredges, 1917, 29 pp. Sacramento.*

These bulletins are issued in cooperation with the United States Bureau of Mines. Each of the first three contains a discussion of the causes and prevention of accidents in connection with some particular phase of mining. Bulletin 5 is illustrated, showing methods of safeguarding certain kinds of machinery. There is an outline showing how to introduce a safety campaign through the organization of safety committees. Bulletin 6 aims to present a just and equitable schedule under which merit rating may be done. It is explained that recognition is given the safety work and safety conditions at any mine, and that these factors are rated so that the insurance rate to be paid will depend quite largely on conditions at the mines. Instead of demanding that all minor precautions must be observed, the schedule leaves to the judgment of the operator the decision as to whether certain precautions shall be regarded. If regarded, the rate is reduced; if disregarded, the rate is correspondingly increased.

ILLINOIS.—*Department of Mines and Minerals. Thirty-sixth annual coal report of Illinois. Springfield, 1917. 302 pp.*

According to this report the total tons (2,000 pounds) of coal produced by 810 mines employing 80,893 men and working an average of 179 days during the year ending June 30, 1917, was 78,983,527. This is an increase over 1916 of 6.6 per cent in the number of employees and of 24 per cent in the number of tons produced. Of the employees, 1,527 were boys. Tables of wages paid show that the average price paid per gross ton for hand mining at shipping mines was 70.5 cents as compared with 67 cents in 1916, and for machine mining 56.8 cents as compared with 52.4 cents in 1916. The corresponding rates of wages at local mines were 91.6 cents for hand mining as compared with 74.9 cents in 1916, and 65.5 cents for machine mining as compared with 55.7 cents in 1916. Accident statistics show that during the year 207 lives were lost, 183 being in the mines, 19 on the surface, and 5 in the shafts, and that the number of tons mined to every life lost was 381,563. The fatality rate was 2.56 per 1,000 employees; in 1916 it was 2.17. Injuries to the number of 1,634, each resulting in a loss of 30 or more days, are recorded. The total time lost was 78,947 days, or an average of 57.58 days for each man who returned to work; 263 did not return to work. The number of fatalities was 25.5 per cent greater and the number of injuries was 25.2 per cent greater than during 1916, while the number of men employed, as stated above, was only 6.6 per cent greater.

MARYLAND.—*Industrial Accident Commission. Third annual report for the year November 1, 1916, to October 31, 1917, inclusive. Baltimore [1918]. 51 pp.*

This report is noted on pages 182 to 184 of this issue of the MONTHLY REVIEW.

MASSACHUSETTS.—*Bureau of Statistics. Labor Bulletin 122. Labor legislation in Massachusetts, 1915, 1916, and 1917, with index to bills affecting labor introduced during the session of 1917 and other matters bearing on the labor legislation of the year 1917. (Supplement to Labor Bulletin 104.) Boston, September 1, 1917. 162 pp.*

MINNESOTA.—*State Board of Control. Children's Bureau. Compilation of the laws of Minnesota relating to children, 1917. St. Paul, 1917. 185 pp.*

This compilation is simply a collection of Minnesota laws touching the lives and welfare of children from a social point of view rather than in purely legal and business ways.

NEW YORK (CITY).—*Tenement House Department. Eighth Report, for the years 1915 and 1916. 115 pp. Illustrated.*

Announces in the résumé of 1915-1916 that "the practical elimination of dark rooms in tenements made the year 1915 one of the important periods in the history of the tenement house department." When the problem was first attacked it was found that there were at least 300,000 dark and inadequately lighted rooms. "In 1901 when the department began its work the city death rate was 19.90 per 1,000—to-day it is 13.52." It appears that in 1916 there were 976,397 apartments in tenement houses, the number being increased by about 30,000 a year. During the year 216,429 orders were issued against 38,123 tenement houses found to be violating the law in some particular. In the first week of March, 1916, 5.6 per cent of the apartments were vacant.

PENNSYLVANIA.—*Department of Labor and Industry. Bulletin, vol. 4, series of 1917, No. 7. Harrisburg, 1917. 98 pp.*

Contains a statement of the number of accidents and the amount of accident compensation paid and awarded during the first seven months of 1917, and an analysis of the accidents and compensation costs in the coal mining industry for the year 1916. The bulletin also reviews the operations of the other bureaus of the department for the months of May, June, and July, 1917.

During the first seven months of 1917 there were reported 1,877 fatal and 139,598 nonfatal accidents, and during the same period compensation amounting to \$2,889,639.35 was awarded to dependents of workers killed, while \$1,429,353.41 was paid to workers disabled. The corresponding figures for the year 1916 are \$2,965,255.72 and \$1,259,619.71, respectively.

VIRGINIA.—*Bureau of Labor and Industrial Statistics. Twentieth annual report, 1917. Richmond, 1917. 154 pp.*

States that the value of all products manufactured in the State during the year 1916 was \$379,529,528.09, an increase of 34.7 per cent over 1915, the iron and machinery industry being the largest single industry in point of production value—18.4 per cent of the whole. "There are many sources of labor supply, although farm labor is becoming scarce under the present heavy drafts that are being made from other sections. This, however, does not menace the manufacturing interests which will be able for many years to come to recruit from the native population."

For each important industry there is a table showing the highest, lowest, and average daily wages paid in each occupation in 1916.

The report notes a total of 222 prosecutions of offenses against the labor laws during the 11 months ending September 1, 1917, 127 being for violations of the child labor law. During the same period there were 575 accidents (63 fatal) in coal mines, 175 of the accidents being caused by mine cars, including motors and oven lorries. The need of a State workmen's compensation law is suggested. The report closes with a reprint of all State laws affecting labor.

WISCONSIN.—*Industrial Commission. Elevator Code. Revised code effective January 10, 1918. [Madison, 1917]. 22 pp.*

— — — *Report on allied functions for the two years ending June 30, 1917. [Madison], September 1, 1917. 56 pp.*

Contains a brief report of each of the various activities of the industrial commission. In noting workmen's compensation transactions during the two-year period the report calls attention to the "abnormal increase in claims," the number of accidents reported being 36,575, or an increase of more than 75 per cent over the number reported in the

preceding two-year period. A total of 30,005 cases was settled in which compensation was paid, the indemnity amounting to \$2,123,145, and medical aid amounting to \$669,373, or an average total benefit of \$93.07 per case.

The free employment offices reported that during each of the last two years the calls for help exceeded the applications for work, this being especially true of 1916-17 when employers sought 59,985 workpeople and only 51,727 applied for work. In 1915-16 the number of positions secured was 33,221, and in 1916-17 the number secured was 38,084, this latter figure being 72.8 per cent of those referred to positions. Outside those hired as general laborers and in casual work, both representing 70.4 per cent of the positions secured, the largest number of workers, 6.2 per cent, was placed in logging positions. Private employment agencies secured positions for 14,950 workers.

The activities of the commission along the lines of woman and child labor, minimum wage, mediation and arbitration, safety and sanitation, and factory, boiler, and bakery inspection, are briefly touched upon.

UNITED STATES.—*Congress. House. Committee on Labor. Hearings on H. R. 7353, a bill to employ convict labor for the production of war supplies and to authorize their purchase by the Federal Government, etc. [Part 1] January 18, 1918, 24 pp. Part 2 February 1, 1918, 57 pp. Washington, 1918.*

The full title of the bill on which these hearings were held is "A bill to employ convict labor for the production of war supplies and to authorize their purchase by the Federal Government; to regulate the compensation and hours of labor and fix standards; to prohibit the purchase of war supplies manufactured by convicts under private contract; to limit the effect of interstate commerce between the States in goods, wares, and merchandise wholly or in part manufactured, mined, or produced by convict labor or in any prison or reformatory; and to equip the United States penitentiaries at Atlanta, Ga., Leavenworth, Kans., and McNeill Island, Wash., and the United States Army prison and disciplinary barracks, and the United States Naval prison, for the manufacture of supplies for the use of the Government, for the compensation of the prisoners for their labor, and for other purposes."

Part 1 includes a statement by Congressman Booher, of Missouri, and one by Grant Hamilton, Federation of Labor, Washington, D. C., both favoring the bill, although the latter stated that "we are not absolutely committed to the exact phraseology of this bill," and that "if any changes can be made and still keep within the spirit of the bill and in harmony with it we are perfectly willing to agree to such changes, although we think the bill has been pretty fairly whipped into shape." There is also a statement by Congressman Church, of California, and one by Dr. E. Stagg Whitten, chairman of the executive committee of the national committee on prisons and prison labor, Washington, D. C., both favoring the enactment of the bill.

Part 2 contains a statement by Edward H. Morrell in behalf of the men and women incarcerated in Federal prisons, his testimony being from personal experience. John J. Manning, secretary-treasurer of the union label trades department of the American Federation of Labor, also submitted a statement favoring the bill. He said:

We are strictly opposed to Federal or State Governments, or government of any character, incarcerating men for crime and then subletting that responsibility, assumed on taking a man into custody, by selling his labor power to private individuals, firms, or corporations for profit. But we are heartily in accord with the idea that all law violators shall be apprehended, and once apprehended, State or Nation shall shoulder its responsibility by employing such men and women at gainful, educative, manlike and womanlike occupations.

The pamphlet contains an account of the scope of the work of the national committee on prisons and prison labor, with bibliography.

— *Department of the Interior. Bureau of Mines. Yearbook, 1916. Washington, 1917. 174 pp. Illustrated.*

This bulletin gives a description of some noteworthy safety devices and discusses in fuller detail than the annual report the relation of the bureau's work to the general

problems of safety and efficiency in the mineral industries and the significance of the results that the bureau has been able to achieve. The discussions and descriptions are grouped mostly according to the investigations carried on by the several divisions of the bureau, as follows: Mining, fuels and mechanical equipment, mineral technology, petroleum technology, and metallurgy. To show the need for energetic efforts to reduce the loss of life at mines in the United States the bureau gives a summary of the fatalities in coal mining, from which it appears that since 1870 complete records show that 54,453 men have been killed by accidents while mining coal. The production during this period was 9,838,300,000 tons, and the fatality rate per 1,000 men employed was 3.30, while for every 10,000,000 tons of coal produced, 55 lives were lost, or a production of 180,676 tons for each fatality. That the accident rate is being reduced would seem to be shown by the fact that the fatality rate per 1,000 men employed in 1915 was 2.95, which is said to be the lowest recorded since 1898.

The extent of mine rescue and first-aid training work carried on by the Bureau of Mines during one year is indicated by the following paragraph from the report:

During the period in which the crews of the bureau's mine safety cars [8 cars] and stations [5 stations] conducted active training in the fiscal year ended June 30, 1916, 62,693 miners visited the cars and stations, 43,060 attended lectures and safety demonstrations, 285 received mine-rescue training, 5,598 were given first-aid instruction, and 2,610 received both first-aid and mine-rescue training, the total number trained being 8,493, which is an increase of 494 over the previous year.

UNITED STATES.—*Eight-hour commission. Commission on standard workday of railroad employees, created by act of Congress approved September 3 and 5, 1916. Report. Washington, 1918. 503 pp.*

This report is noted on pages 136 to 139 of this issue of the MONTHLY REVIEW.

— *Public Health Service. Mental examination of immigrants: Administration and line inspection at Ellis Island. By E. H. Mullan. Reprint No. 398 from the Public Health Reports, May 18, 1917, pp. 733-746. Washington, 1917. 14 pp. Illustrated.*

Describes the procedure followed by public health officers in examining immigrants at Ellis Island, New York. It is stated that about 15 to 20 per cent of all immigrants are "chalk marked" by the medical officers after the preliminary physical examination, indicating the necessity of a more thorough examination for physical defects. Illustrations are given of methods pursued in examining the mental condition of aliens.

— — *Occupation and mortality, their relation, as indicated by the mortality returns in the city of New York for 1914, by Shirley W. Wynne, M. D., and William H. Guilfoyle, M. D. Reprint No. 400 from the Public Health Reports, June 8, 1917, pp. 885-902. Washington, 1917. 18 pp.*

An important feature of this report is a table covering five pages, showing deaths by occupations and age groups, in New York City, 1914, the total number of causes of death being 12, besides the group "All other causes," and the number of occupations included being 11, as follows: Blacksmiths; cigar makers and tobacco workers; clerks, bookkeepers, office assistants, etc.; compositors, printers, etc.; garment workers; laborers; machinists; painters, paper hangers, varnishers; railroad track and yard workers; saloon keepers, bartenders, etc.; and teamsters and drivers. It is noted that one difficulty in collecting accurate statistics of this kind is that in many cases persons engaged in a hazardous occupation become ill as a result of such occupation, leave it, and secure employment in one less hazardous, and death, when it results, is tabulated according to the last occupation, though it should have been charged against the previous or more hazardous one. Another and greater difficulty encountered is the absence of accurate knowledge of the number of persons engaged in each occupation, as well as the lack of knowledge of the sex, age, and nationality of the persons in each occupation. Without such knowledge it is hardly possible to compute the mortality rates or to make accurate comparisons of the mortality of the differ-

ent occupations. However, the table indicates those occupations having high mortality from all causes or from some particular cause, from which it may be argued that certain occupations are hazardous to the health and life of those engaged in them. The following table shows for each specified occupation the percentage of incidence of death from each specified cause, by occupations, the number in parentheses in connection with each occupation indicating the total number of deaths upon which the percentages are based:

PERCENTAGE OF DEATH FROM EACH SPECIFIED CAUSE, BY OCCUPATIONS.

Cause of death.	Black-smiths (139).	Cigar mak- ers and tobacco work- ers (265).	Clerks, book- keepers, office assist- ants, etc. (1,874).	Com- posi- tors, print- ers, etc. (309).	Gar- ment work- ers (761).	Labor- ers, (4,805).	Paint- ers, paper- hang- ers, var- nish- ers (610).	Rail- way, track, and yard work- ers (301).	Sal- loon- keep- ers, bar- tend- ers, etc. (396).	Team- sters and driv- ers (1,172).	Ma- chin- ists (312).
Pulmonary tuberculo- sis.....	15.10	20.38	28.80	33.60	17.08	27.48	22.62	19.27	22.98	35.67	25.65
Cancer.....	9.30	8.30	4.90	4.80	9.07	4.99	6.56	5.65	3.28	3.24	4.49
Diabetes.....	1.40	1.51	.....	.....	.....	.....	.33	.....	.....	.....	.....
Alcoholism.....	2.80	.....	.....	.....	.....	3.16	.98	.....	6.31	2.73	.....
Apoplexy.....	2.80	.....	1.30	.90	1.97	1.27	¹ 2.62	.66	1.01	1.36	.96
Organic heart disease..	15.80	² 18.87	14.00	13.60	20.74	13.40	14.92	17.61	² 10.10	10.32	14.10
Lobar pneumonia.....	10.00	5.66	8.50	11.00	7.62	9.88	7.38	11.63	9.09	8.45	8.01
Cirrhosis of liver.....	2.10	2.64	1.30	1.60	.53	1.58	1.15	1.66	4.54	1.71	1.92
Bright's disease.....	11.50	10.57	8.60	8.40	8.28	7.83	10.65	7.31	9.60	8.02	7.69
Lead poisoning.....	.....	.....	.....	.....	.....	.....	1.14	.....	.....	.....	.....
Suicide.....	2.10	4.15	2.00	.30	3.55	1.12	2.29	2.33	4.04	2.13	2.56
Accident.....	7.90	3.77	4.50	4.50	3.68	9.08	7.70	11.63	3.03	8.36	7.37
All other causes.....	18.70	24.15	25.90	21.00	27.46	20.21	21.64	22.26	26.01	18.00	27.25

¹ Cerebral hemorrhage.² Heart disease.

The report suggests certain administrative measures which may be promoted by (1) a crusade against pulmonary tuberculosis and the respiratory diseases among clerks, compositors, and similar groups, and a more extensive study of the causes of the high mortality from pulmonary tuberculosis among teamsters and drivers; (2) a widespread effort to control the incidence of heart disease among garment workers and cigar makers; and (3) a campaign against the abuse of alcohol.

OFFICIAL—FOREIGN COUNTRIES.

AUSTRALIA.—[Department of the Treasury.] *Invalid and old-age pensions. Statement for the 12 months ended 30th June, 1917 [Victoria, 1917], 8 pp.*

States that the number of old-age pensions current on June 30, 1917, was 93,672 or an increase of 2.1 per cent over 1916; and that the number of invalid pensions current on June 30, 1917, was 26,781 or an increase of 14.3 per cent over the preceding year. The following statement shows the extent of invalid and old-age pensions transactions during the year ending June 30, 1917, as compared with the preceding year:

INVALID AND OLD-AGE PENSIONS TRANSACTIONS IN AUSTRALIA DURING THE YEARS ENDING JUNE 30, 1916 AND 1917.

Item	Year ending June 30—		Per cent of increase.
	1916	1917	
Number of old-age pensioners.....	91,783	93,672	2.1
Number of invalid pensioners.....	23,439	26,781	14.3
Amount paid in pensions.....	\$13,917,051.24	¹ \$17,125,150.24	23.1
Amount paid to benevolent asylums for maintenance of pensioners.....	\$154,905.56	\$171,047.74	10.4
Total payments to pensioners and benevolent asylums.....	\$14,071,956.80	¹ \$17,296,197.98	22.9
Cost of administration.....	\$216,077.47	\$264,703.53	22.5
Cost of administration per each \$100 of pensions and asylum payments.....	\$1.54	\$1.53	.....
Annual liability on last day of financial year.....	\$14,114,563.01	¹ \$18,547,204.80	31.4
Average fortnightly pension on last day of financial year.....	\$4.70	\$5.90	25.5
Number of old-age pensioners in each 10,000 of population.....	186	192	3.2
Number of invalid pensioners in each 10,000 of population.....	48	55	14.6

¹ Includes payments at rate of 2 s. (48.7 cents) per week to pensioners in benevolent asylums.

AUSTRALIA.—[*Department of the Treasury.*] *Maternity allowances. A statement of claims granted and rejected, expenditures, and cost of administration during the 12 months ended 30th June, 1917. Melbourne, 8th August, 1917. 3 pp.*

It is shown in this report that allowances were granted in 132,407 cases, and rejected, for one cause or another, in 459 cases. The total amount paid to mothers was £662,035 (\$3,221,793.33) or an average of \$24.33 per case; and the total cost of administration was £13,735 (\$66,841.38) or an average of £2 1s. 6d. (\$10.10) for each £100 (\$486.65) of maternity allowance paid.

— *Manual of Emergency Legislation. Comprising all acts of Parliament, regulations, proclamations, orders, etc., relating to and made in consequence of the war. Melbourne, January, 1916. 540 pp. Price, 7s. 6d.*

— (QUEENSLAND).—*Registrar general's office. A B C of Queensland statistics, 1917. Brisbane, 1917. 46 pp.*

A statistical abstract for 1917 prepared by the Government statistician under the direction of the home secretary.

— (SOUTH AUSTRALIA).—*Report of chief inspector of factories for the year ended December 31, 1916. Adelaide [1917]. 11 pp.*

States that at the end of 1916 there were 1,892 factories registered (42 less than the preceding year), in which 18,663 workers were employed (23 more than the preceding year), 1,458, or 7.8 per cent, of these being children between the ages of 13 and 16 years. The report notes 116 accidents, 3 being fatal and 76 being injuries to hands and arms. About 45 per cent of the accidents were in iron foundries and other metal-working factories. The wages paid indicate an all-round average increase of approximately 4.25 per cent on the rates paid during the previous year and in some cases the increases average as high as 17 per cent. Increases noted are biscuit manufacture, 17 per cent; boots and shoes, 16 per cent; slaughtermen and butchers' drivers, 14 per cent; hardware trade, 13 per cent; galvanized iron workers, etc., 12 per cent; monumental masons, 11 per cent; butchers, 10 per cent; builder's laborers, 10 per cent; aerated waters, etc., 9 per cent; and carpenters, carriage building, and furniture manufacture, 8 per cent.

"With the exception of work connected with the building trades employment was fairly plentiful, and trade has been good generally during the past year." Average weekly earnings of boys under 16 years of age ranged all the way from 8s. (\$1.95) paid to boys working as tanners and curriers to 30s. 6d. (\$7.42) paid to boys working in flour mills; while the average earnings of girls under 16 ranged from 4s. 9d. (\$1.16)

paid to those working at dressmaking to 15s. 10d. (\$3.85) paid to those working in hardware factories.

CANADA.—[*Census and Statistics Office.*] *The Canada Yearbook, 1916-17.* Ottawa, 1917. 720 pp.

Several items in this book are of interest to labor. During the fiscal year ending March 31, 1917, the number of immigrant arrivals was 75,374 as compared with 48,537 during the preceding year, an increase of 55.3 per cent. About 81 per cent were from the United States. During 1916, in accidents resulting from the movement of trains, locomotives, or cars, 437 persons were killed and 2,058 were injured, while 31 were killed and 2,920 were injured in other railroad accidents. In addition to these, 50 persons were killed and 3,029 were injured on electric railroads. There were 75 labor disputes during 1916, as compared with 43 in 1915. The 75 strikes involved 271 employers and 21,157 workpeople, with resultant time loss to the latter estimated at 208,277 work days, or an increase of 102,128 (96.2 per cent) days over the preceding year. The largest number of strikes (19) was in the transport industry, while the largest time loss (88,634 days, or 42.6 per cent of the total) occurred in the mining industry, which had 10 strikes. As to the matter of caring for the returned disabled soldiers and giving them training in their old occupations, or in a new vocation if unfitted to pursue their former work, the report makes the following statement of the work of the military hospitals commission:

The following matters are now dealt with by the commission: Hospitals for sick and wounded, convalescent homes, sanatoria for the tuberculous, care of the insane, treatment of men suffering from shell shock, manufacture of artificial limbs, reeducation or vocational education of men who pass through the hospitals, finding of employment for discharged men. All men passing through the commission's institutions are required to take some educational course unless excused on medical grounds. Men whose disability, caused or aggravated by service, prevents them from resuming their former trade may claim free training for a new occupation. About 1,500 such applications have been approved up to the end of November, 1917. * * * In finding employment for discharged men the commission is assisted by a commission or committee in each Province. The number of men receiving care and treatment under the commission was 10,953 on November 15, 1917. Returned soldiers have been divided into three classes, viz, (1) men for immediate discharge without pension; (2) men whose condition may be benefited by further medical treatment or rest in a convalescent home, hospital, or sanatorium; and (3) men having permanent disability which would not be benefited by further medical treatment, and whose cases are considered by the pensions board with a view to pension. Up to March 31, 1917, the number of men returned was 13,826, of whom 2,891 were of class 1, 9,125 were of class 2, 828 were of class 3, 864 were men not classed as invalids, and of 119 there was no record. The total had increased by October 31, 1917, to 29,092, of whom 18,099 were invalids coming under the care of the commission. In May, 1917, the various institutions available or under construction throughout Canada numbered 110, providing accommodation for 14,949 cases. At the end of September, 1917, there were 113 institutions in use, of which 71 were operated by the commission, 21 were new centers provided, and 45 were remodeled during the year 1917.

— *Commission of Conservation. Urban and rural development in Canada. Report of conference held at Winnipeg, May 28-30, 1917.* Ottawa, 1917. 98 pp.

The subjects of papers presented at this conference are: Municipal problems of the western Provinces, by Hon. W. J. Armstrong, municipal commissioner of Manitoba; Municipal Finance and Administration, by Dr. H. L. Brittain, director Bureau of Municipal Research, Toronto; and one on the same subject by C. J. Yorath, city commissioner, Saskatoon; Municipal and Vital Statistics, by R. H. Coats, Dominion statistician and controller of census; Rural Production and Development, by Dr. James W. Robertson; Civic Efficiency and Social Welfare in Planning of Land, by W. F. Burditt, chairman, St. John, N. B., Town Planning Commission; Planning and Development of Land, by Thomas Adams, town planning adviser, Commission of Conservation. A special session was devoted to a discussion of the problem of the returned soldier.

CANADA.—*Department of Secretary of State. Proclamations, orders in council, and documents relating to the European war. Fourth supplement. Ottawa, 1917. cxliv, 1952-2439, 538-964 pp.*

— *Military Hospitals Commission. Reconstruction. Bulletin, January, 1918. 22 Victoria Street, Ottawa. 16 pp. Illustrated.*

This bulletin, entitled "Reconstruction," is published "for the information of all interested in the welfare of Canada's returned soldiers," for, as stated on the front cover, "the cold figures of enlistment indicate the magnitude of the work of reconstruction—reconstruction of those who are maimed, and reconstruction of our industrial and social organisms to make place for the men returning during and after the war." Whether or not this bulletin is to be published regularly does not appear, nor is there any indication that this January number is or is not the first issue. There are several special articles, one of which describes Canada's method of manufacturing artificial limbs and fitting them to soldiers who have lost their limbs in battle.

GREAT BRITAIN.—*Ministry of Labor. Industrial councils. The Whitley report, together with the letter of the Minister of Labor explaining the Government's view of its proposals. Industrial Reports, No. 1. 1917. 19 pp. Price, 1d.*

This report is noted on pages 81 to 84 of this number of the MONTHLY REVIEW.

— *National Health Insurance Joint Committee. The statutes, regulations, and orders relating to national health insurance, with notes, cross references, and an index. London, 1917. 679 pp. Price 2s. 6d. net.*

Contains the text of the National Insurance Acts, 1911-1915, together with sections of other statutes as affecting national health insurance; a table showing the various regulation-making and order-making powers given by the acts, and the manner in which those powers have been exercised; and the text of all the regulations and orders made by the joint committee and the four bodies of commissioners which are now in force.

SWITZERLAND.—*Statistisches Bureau des schweizerischen Finanzdepartements. Statistisches Jahrbuch der Schweiz, 1916. Vol. 25. Berne, 1917. 288 pp.*

The twenty-fifth volume of the official statistical yearbook of Switzerland for the year 1916, containing statistical data usually shown in publications of this kind. Of interest to labor are the data showing the number of industrial establishments subject to factory inspection, and the data relating to wholesale and retail prices and to cost of living.

UNOFFICIAL.

AMERICAN ACADEMY OF MEDICINE. *Medical Problems of Legislation. Being the papers and discussions presented at the 41st annual meeting of the American Academy of Medicine, held at Detroit, Mich., June 9-12, 1916. Easton, Pa., 1917. 234 pp.*

The 18 papers (not including the president's address) in this volume are grouped under four general heads, namely: Legislation affecting the entrance upon the practice of medicine; Legislation affecting the status and duties of physicians; Industrial legislation; Legislation for care of exceptional cases.

AMERICAN FEDERATION OF LABOR. MASSACHUSETTS BRANCH. *Proceedings of the thirty-second annual convention, Lawrence, September 10-13, 1917. 108 pp.*

AMERICAN INDUSTRIAL COMMISSION TO FRANCE. *Franco-American Trade. Report to the American Manufacturers Export Association by the American Industrial Commission to France, September-October, 1916. Redfield-Kendrick-Odell Co., New York, [1917]. 256 pp. Illustrated. Maps.*

The American Industrial Commission, organized and conducted under the auspices of the American Manufacturers Export Association, went to France "to ascertain how American resources might best be made available for the reconstruction of the devastated regions, and with a hope of furthering Franco-American trade relations." Some of the subjects touched upon in the report are the following: Trade and tariff, Industrial machinery Labor, Syndicates and cooperative societies, Social welfare,

City planning, General and technical education, and Belgian reconstruction. The summary states that the keynote of every interview was the insistence upon complete reciprocity between the two countries.

BARTON, GEORGE EDWARD. *Reeducation—an analysis of the institutional system of the United States*. Boston and New York, Houghton Mifflin Co., 1917. 119 pp.

The author declares in his preface that he has no quarrel with the church or the hospital or with any other institutions that are working for the good of humanity, but adds that "a number of years spent in practical work along lines of education and of social betterment, combined with years spent in the meeting of industrial conditions necessitated by the practice of architecture, so unite as to make me believe that there are some fundamental weaknesses or fallacies in our present system of dealing with education, sin, insanity, and disease."

It seems to be the purpose of the author to point these out with a note of caution to business men who are constantly called upon for contributions to aid institutions of various kinds. It is his declared belief that there must be a limit somewhere to the amount of time, energy, and money which can be expended by a State or an individual, however rich, and he aims to show that "there must be a relation between the amount which can be spent for any purpose, however praiseworthy, and the total production of a people."

BREND, WILLIAM A. *Health and the State*. London, Constable, 1917. 354 pp.

An important book, outlining a scheme for complete reorganization of the public health services of Great Britain, both central and local, the most important function assigned to a ministry of health being that of investigating the causes and distribution of disease, while actual administration of public health measures is left to local authorities provided with increased powers. The chapters are: 1. The sanction of the State to safeguard the national health; 2. Nature and disease; 3. Infant mortality and its problems; 4. Disease and defects in children and adults; 5. Public health, land, and housing; 6. Medical treatment among the working classes; 7. Public health and the National Insurance Act; 8. Public health and fraud; 9. The complexity of public health administration; 10. The need for a ministry of public health; 11. Public health and local administration. The author is lecturer on forensic medicine in Charing Cross Hospital, London.

CARLE, M. *Les Écoles professionnelles de blessés*. Paris, Baillière & Sons, 1915. 132 pp. Illustrated.

An account of vocational reeducation and employment of disabled soldiers in France, with a comparison of the relative advantages of various reeducation methods, and a detailed account of the work of the special schools.

CARPENTER, EDWARD. *Towards Industrial Freedom*. London, George Allen & Unwin; New York, Charles Scribner's Sons, 1917. 224 pp.

A collection of papers written before the war broke out, the first paper sketching "the evils which arose from the industrial arrangements of the early part of the last century, and the reforms into which these evils forced us," and subsequent papers indicating what transformations may be expected in the future. These transformations, it is felt, will be largely psychological in character—that is, dependent upon a changed mental attitude toward life and a changed estimate of values, even more than on a change in institutions. "Over and beyond any formulas of reform what is needed is a new spirit of social and industrial life. Without that even the best institutions will be of little avail." Carrying out this thought the author introduces chapters on industry as an art, beauty in everyday life, nongovernmental society, agricultural cooperation, the village and the landlord, and British aristocracy and the House of Lords. The concluding chapter is on social and political life in China.

COLLIE, JOHN, M. D. *Malingering and feigned sickness, with notes on the Workmen's Compensation Act, 1906, and compensation for injury, including the leading cases thereon.* London, Edward Arnold, 1917. 664 pp. Illustrated. Second edition, revised and enlarged.

This important work, by a leading authority on the subject, has practically been rewritten since its first appearance in 1913, a number of chapters having been added and others revised. Sir John Collie has devoted himself to this class of work for the past 11 years, during which time he has conducted over 31,000 examinations of alleged sickness or accident. In this book he formulates certain theories with regard to malingering, exemplifying them with typical cases from his own experience, and offers tests for discovering and remedies for dealing with the deceiver and the exaggerator. Important chapters are: Military malingering; Medical aspect of the Workmen's Compensation Act, 1906; Workmen's Compensation Act, 1906, and scheduled diseases; The effect of recent legislation upon sickness and accident claims; and The National Insurance Acts, 1911 and 1913.

CURTIS, HENRY S. *The play movement and its significance.* New York, Macmillan, 1917. 346 pp. Illustrated.

The author's aim in this volume has been to give a concrete picture of the extent of the development of play in this country, the sources from which the movement has sprung, and the direction in which it is going.

DEACON, J. BYRON. *Disasters, and the American Red Cross in disaster relief.* Social Work Series. New York, Russell Sage Foundation, 1918. 230 pp.

The author here aims to give an account of the methods and technique that have been developed by the American Red Cross in carrying on its disaster relief work in order to furnish a profitable guide to all who may be called upon to undertake like responsibilities. A plea is made for the fullest possible measure of preparedness in advance of public calamities. The study is limited to calamities which have occurred within the borders of the United States during the last 12 years and to relief operations following thereafter in which the Red Cross has had a part. A detailed outline of the method of organizing relief work is given.

FOX, R. FORTESCUE, M. D. *Physical remedies for disabled soldiers.* London, Baillière, Tindall & Cox, 1917. 277 pp. Illustrated.

In three parts: I. Hydrological remedies and the indications for their use; II. Mechanical and electrical remedies; III. The provision for physical remedies. Maj. R. Tait McKenzie, of the University of Pennsylvania, contributes a chapter on Mechanical treatment and remedial exercises; Dr. F. Hernaman-Johnson, of Cambridge Hospital, Aldershot, a chapter on Electrical treatment of military cases; and Dr. J. B. Mennell, Military Orthopedic Hospital, Shepherd's Bush, a chapter on Clinical uses of massage.

GILBRETH, FRANK B. AND L. M. *Applied motion study: A collection of papers on the efficient method to industrial preparedness.* New York, Sturgis & Walton, 1917. 220 pp. Illustrated.

This book aims (1) to describe motion study as applied to various fields of activity and (2) to outline the principles and practice of motion study in such a way as to make possible its application in any and all kinds of work. It includes a chapter on motion study for the crippled soldier.

— *Measurement of the human factor in industry.* 1917. 14 pp. Privately printed.

An address before the National Conference of the Western Efficiency Society. Devoted mainly to a consideration of the problem of reeducating and utilizing the war cripple.

— *Motion study for crippled soldiers.* 1916. 8 pp. Privately printed.

On the use of the motion chart to suggest changes in the method of doing work so that it may be performed by cripples.

GILBRETH, FRANK B. AND L. M. *The conservation of the world's teeth: A new occupation for crippled soldiers. Reprinted from the July, 1917, number of The Trained Nurse and Hospital Review.* [7 pp.] *Illustrated.*

Describes and advocates the profession of dental nursing and the cleaning of teeth—at present neglected because of the expense of having such work done by a trained expert—by crippled soldiers.

GOLLANCZ, VICTOR, ed. *The making of women. Oxford essays in feminism, by A. Maude Royden, Ralph Rooper, Eleanor F. Rathbone, Elinor Burns, The Round Table, and Victor Gollancz.* London, George Allen & Unwin, and New York, Macmillan, 1917. 217 pp.

An attempt to frame "an unified feminist policy" and to suggest the lines on which feminism should develop. In Miss Rathbone's essay on "The remuneration of women's services" it is suggested that equal pay for equal work, considered as an immediate policy, is unsound. The other side of this question is presented in a reprint, as Appendix A, of an article on the same subject which appeared in The Round Table of March, 1916.

HANNA, HUGH S., AND LAUCK, W. JETT. *Wages and the war: A summary of recent wage movements.* Cleveland, Ohio, 1918. Doyle & Waltz Printing Co. 356 pp. Charts.

This study is noted on pages 134 and 136 of this number of the MONTHLY REVIEW.

HEY, SPURLEY. *Development of the education of wage earners, with special reference to the education of older boys and girls.* London, Oxford University Press, 1917. 16 pp. Price, fourpence. Barnett House Papers No. 2.

Every year about 200,000 children leave the English elementary schools at 13 years of age, and many of these enter blind-alley employment. The present study deals briefly with the problem of the education and employment of wage-earning children under the following heads. I. The present position; II. The existing means to meet this position; III. The urgent necessity—the last named including a scheme for reform.

HOAGLAND, H. E. *Wage bargaining on the vessels of the Great Lakes.* Urbana, Ill., 1917. 123 pp. *University of Illinois Studies in the Social Sciences, Vol. VI, No. 3.*

Formerly the wage earner identified his interest with that of his employer. Later he banded with his fellow workers into unions for the purpose of bargaining with the employers. More recently he has had the terms of his labor contract dictated by the same corporation which dominates the management of the physical property involved in lake traffic.

HOBSON, J. A. *Democracy after the war.* London, George Allen & Unwin, 1917. 215 pp.

The war has done good service "by lighting up the country and bringing out in clear relief the full alliance of reactionary forces with which democracy is called upon to deal." In Part I the author discusses the enemies of democracy, his object being "to show the unity of the apparently unrelated reactionary forces, and thereby to reveal the necessity of coordination among the forces of democracy." Part II, entitled "The defence of democracy," is divided as follows: 1. How to break the vicious circle; 2. The new economic situation; 3. Two problems for labor; 4. The conquest of the State; 5. The close State versus internationalism.

HUTT, C. W. *The future of the disabled soldier.* London, T. Fisher Unwin, 1917. 199 pp. *Illustrated.*

The chapters of this book are as follows: I. Arrangements for treatment; II. Training of the disabled abroad; III. Training of the disabled in the United Kingdom; IV. Occupation and physical defect; V. Employment of the disabled in the United Kingdom. In the seven appendixes are discussed special facilities, suitable occupations, training classes, etc. Various artificial appliances are described. From the beginning of the war (August, 1914) up to May 31, 1916, the causes of discharge from

the British Navy and Army included 4.1 per cent wounds and injuries to legs necessitating amputation, 2.5 per cent wounds and injuries to arms or hands necessitating amputation, and 1.2 per cent cases of frost bite which included amputation of feet or legs. These proportions, it is stated, had changed but little, if at all, by the beginning of March, 1917.

INSTITUT INTERNATIONAL D'AGRICULTURE. *Annuaire international de législation agricole. VIème Année, 1916. Rome, 1917. 1458 pp.*

This is a compilation, from official sources, of agricultural legislation enacted in all countries during the year 1916, with an analytical introduction in English. The text is in French.

Laws have been arranged under 10 general heads, as follows: I. Relative to agricultural census returns, including production and area under cultivation; II. Commercial regulations (supplies and consumption); III. Excise duties and taxes; IV. Promoting the cultivation of waste or abandoned lands, and measures intended to increase production; V. Promoting increased production of livestock, and regulating consumption of meat; VI. Agrarian organizations and agricultural education; VII. Plant diseases, weeds, and pests, and animals noxious to agriculture; VIII. Farm credits; IX. Land grants, etc.; X. Agrarian contracts.

JAFFRAY, JULIA K., ed. *The prison and the prisoner. Boston, Little, Brown & Co., 1917. 216 pp.*

A symposium by various authorities, edited by the secretary of the National Committee on Prisons and Prison Labor. Includes Industrial training for the prisoner, by Arthur D. Dean, director of agricultural and industrial education, New York State Department of Education, and The union man and the prisoner, by Collis Lovely, vice president of the International Boot and Shoe Workers' Union.

JENES, JEREMIAH WHIPPLE. *The trust problem. New York, Doubleday, Page & Co., 1917. 499 pp. Charts. Fourth edition, enlarged and completely revised.*

Revised with the collaboration of Walter E. Clark, professor of economics, College of the City of New York.

KELLOGG, VERNON, AND TAYLOR, ALONZO E. *The food problem. New York, Macmillan, 1917. 213 pp.*

The authors present the food problem in two parts, the problem and the solution, and the technology of food use. They review the food situation of the Western Allies and the United States, give an outline of the work and purpose of the United States Food Administration, tell how England, France, and Italy are controlling and saving food, with a chapter on food control in Germany and its lessons, and emphasize the international character of the food problem and how it must be met if the war is to be won. There is an introduction by Herbert Hoover, United States Food Administrator.

LEWIS, BURDETTE G. *The offender and his relations to law and society. New York and London, Harper, 1917. 382 pp. Illustrated. Harper's Modern Science Series.*

An attempt to show how the correctional system of a State should be developed, and from what point of view its various correctional institutions should be managed. The author is commissioner of correction of the city of New York.

MACIVER, R. M. *Community: A sociological study. Being an attempt to set out the nature and fundamental laws of social life. London, Macmillan, 1917. 437 pp.*

MANCHESTER STATISTICAL SOCIETY. *Transactions, 1916-17. Manchester (England), John Heywood, 1917. 111 pp.*

Includes the following papers: The case for a guild of shippers, by Barnard Ellinger; Economics after the war, by A. W. Kirkaldy; Education after the war, by the Right Rev. Bishop Welldon; The quantity theory, with some reference to bank reserves, by W. Howard Goulty; State purchase of the liquor trade, by R. B. Batty.

MAYOR'S COMMITTEE ON NATIONAL DEFENSE (NEW YORK CITY). *Committee on Industry and Employment. Report, December 21, 1917. 44 pp.*

The most important conclusion brought out in this report is the need for the establishment of a Federal employment service as a "war necessity."¹ The report devotes considerable space to tracing the development of public employment work in New York State and city from the time of the first active demand for such work between 1885 and 1890 and the subsequent passage of laws in 1888 and 1891 regulating private bureaus in Manhattan and Brooklyn and the establishment of a public bureau in Manhattan in 1896, to the establishment and work of the clearing house for employment offices as conducted since October, 1917, under the State defense council. The committee submitting this report was appointed in June, 1917, and states as its purpose a desire to summarize the experience gained during the course of its activity and to make it available to others who may be called upon to deal with the problem of employment.

It should be stated in this connection that since the report was prepared the United States Employment Service has been organized in the Department of Labor, an account of which appears on pages 76 to 78 of this issue of the MONTHLY REVIEW.

NATIONAL ASSOCIATION FOR THE ADVANCEMENT OF COLORED PEOPLE. *Freeing America. Seventh annual report. 70 Fifth Avenue, New York, 1917. 16 pp.*

NATIONAL CONFERENCE OF SOCIAL WORK. *Proceedings of the forty-fourth annual session, Pittsburgh, June 6-13, 1917. Chicago, 315 Plymouth Court, 1917. 675 pp.*

Contains the valuable material on social problems always to be found in the proceedings of this association, known formerly as the National Conference of Charities and Correction. Part II is devoted to social problems of the war.

NATIONAL LEAGUE ON URBAN CONDITIONS AMONG NEGROES. *A challenge to democracy. The migration of a race. Annual report 1916-17. Bulletin, Vol. VII, No. 1, November, 1917. Headquarters, 2303 Seventh Avenue, New York. 35 pp.*

The following foreword by the president of the association sets forth the problems which constitute "a challenge to democracy":

"The problem of adjusting the relations of two races of the same nationality but with widely differing instincts; the problem of adjusting men raised in agricultural communities, who are suddenly faced with the complications of city life and the intense demands of highly organized industrial conditions; the problem of providing suitable working, living, and recreation conditions which will help in the preservation of health, morals, and happiness, as the negro endeavors to make his contribution to the great forces of democracy—these are the problems which face our country to-day, and they are difficult problems even if faced without prejudice."

The pamphlet presents a review of the work done by the organization in various cities as far west as Detroit and St. Louis.

NATIONAL SAFETY COUNCIL. *Sixth Annual Safety Congress. Proceedings (part 5) Governmental Sectional Meeting. Hotel Astor, New York City, September 14, 1917. Chicago [1917]. 533-593 pp.*

Contains the addresses delivered at the governmental sectional meeting of the sixth annual safety congress of the National Safety Council, held at the Hotel Astor, New York, September 14, 1917, the titles of the addresses being: Safety in United States Government Work, by C. W. Price, field secretary, National Safety Council, Chicago; Dope poisoning in the manufacture of airplane wings, by Alice Hamilton, M. D., United States Bureau of Labor Statistics, Washington (published in the MONTHLY REVIEW for October, 1917, pp. 18-25); Uniform standards for the manufacture and transportation of high explosives, by L. L. Bryant, Commissioner of Labor, Trenton, N. J. (published in the MONTHLY REVIEW for January, 1918, pp. 167-176). A brief account of the sixth annual safety congress was given in the MONTHLY REVIEW for October, 1917, pages 147 and 148.

PHILLIPS, MARY E. *War-time food for women workers.* Manchester [England], 1916. 15 pp. Price 2½ d.

Opening with a general discussion of "food and fitness," the author then presents a chapter on "nourishing food for a shilling a day," in which is given a table setting forth scientifically the food requirements of two women of average weight, in normal health, and taking a moderate amount of exercise; and chapters giving suggestions for daily menus, together with recipes for preparing some of the dishes.

RAMSAY, ALEX. *Terms of industrial peace.* London, Constable, 1917. 144 pp.

Considers the relations of capital and labor and suggests a means by which the two may be "brought into cooperation for their mutual interest and the good of the community." Appears to be, as the author claims it is, "a very sincere attempt to approach the subject from a strictly neutral standpoint."

RAND SCHOOL OF SOCIAL SCIENCE. *The American Labor Yearbook, 1917-18.* 7 East Fifteenth Street, New York, 1918. 384 pp.

In this volume is recorded the progress of the labor and socialist movement in the United States and abroad during 1916 and 1917, supplemented by a series of articles on important social and economic questions. There are six parts: Labor and war; The labor movement in the United States; Labor and the law; Social and economic conditions; The international socialist, labor, and cooperative movements in various countries; and The socialist movement in the United States.

RED CROSS INSTITUTE FOR CRIPPLED AND DISABLED MEN. *Publications, Series I, No. 1, A bibliography of the war cripple.* Compiled by Douglas C. McMurtrie. January 4, 1918. 41 pp. No. 2, *The economic consequences of physical disability; a case study of civilian cripples in New York City.* By J. C. Faries. January, 1918. 11 pp. No. 3, *Memorandum on provision for disabled soldiers in New Zealand.* By Douglas C. McMurtrie. January 26, 1918. 7 pp. 311 Fourth Avenue, New York City.

An extended digest of publication No. 2, *The economic consequences of physical disability*, appears on pages 92 to 96 of this issue of the MONTHLY REVIEW.

ROCKEFELLER FOUNDATION. *Annual report, 1916.* New York, 61 Broadway, 1917. 458 pp. Illustrated.

SCOTT, WILLIAM ROBERT. *Economic problems of peace after war.* The W. Stanley Jevons lectures at University College, London, in 1917. Cambridge (England), University Press, 1917. 122 pp.

An outline of the general appearance which economic life may assume after the war, and an indication of the course which progress may be expected to take, prepared in the belief that "something may be accomplished in applying general principles based upon the teaching of economics or on the experience of somewhat similar conditions in the past, or, again, upon known dispositions of human nature."

The essays are as follows: The economic man and a world at war, "For the duration of the war," Communications of a maritime State, The surprises of peace, Saving and the standard of life, and Organization reorientated. Some statistics of shipping during earlier wars are given in an appendix.

SECRIST, HORACE. *An introduction to statistical methods: A textbook for college students; a manual for statisticians and business executives.* New York, Macmillan, 1917. 482 pp.

"An attempt to work out an introductory, but at the same time a comprehensive, text on statistical methods for the use of college students and students in colleges of business administration," by the associate professor of economics and statistics of Northwestern University.

SEYBOLT, ROBERT FRANCIS. *Apprenticeship and apprenticeship education in Colonial New England and New York.* New York, 1917. 121 pp. Bibliography. Teachers' College, Columbia University, Contributions to Education, No. 85.

English gild and municipal legislation of the thirteenth and fourteenth centuries determined the practice of apprenticeship in the American colonies. This book gives

a somewhat detailed account of the English system and describes its reproduction and continuation in Colonial New England and New York.

SHEPARD, GEORGE H. *The application of efficiency principles.* New York, Engineering Magazine Co., 1917. 368 pp. Illustrated. Industrial Management Library.

An attempt to meet the need for a book explaining "how to apply efficiency principles, as a sort of a supplement to Harrington Emerson's statement of these principles in his book."

THOMPSON, C. BERTRAND. *The theory and practice of scientific management.* Boston, Houghton Mifflin, 1917. 319 pp. Bibliography.

The three most important divisions of this work deal respectively with scientific management in practice, its economic aspects, and its literature. The author is strongly in favor of scientific management, and believes that it represents "an inevitable and irresistible tendency, and that therefore its extension and permanence are assured." At the time of writing, the total number of applications of the theory definitely known to him was 212, with an uncertain number of others about which information was indefinite. The statement is made that "only slightly more than one per cent of the plants in the United States large enough to warrant its development have undertaken it." The obstacles to its development include the conservatism and mental inertia of business managers, the cost of the best-known systems, the scarcity of engineers, and the distrust of social workers and opposition of organized labor.

UNIVERSITY OF PENNSYLVANIA. *Machinery and its benefits to labor in the crude iron and steel industries.* By Charles Reitell. The Collegiate Press, Menasha, Wis., 1917. 36 pp. Illustrated.

In this thesis presented in partial fulfillment of the requirements for the degree of doctor of philosophy, the author gives the results of a study of 25 blast furnaces and 38 open-hearth furnaces located in Eastern Pennsylvania and in Maryland, in which he considers four factors: (1) The nature of the mechanical processes introduced; (2) the number of employees added or displaced by the new invention; (3) the machine as regards the problem of safety; (4) the higher or lower type of worker demanded as measured by (a) physical requirements, (b) mental control and intellectual skill, (c) incomes received. By illustrations and charts the author shows that (1) in both industries mechanical methods have been introduced to an almost amazing extent; (2) that they call for fewer workers; (3) that where modern machinery has been put in the work has proved safer to the employees; (4) that to a great extent unskilled labor has been displaced, and that a call for higher types of workers has been made.

UPHAM, ELIZABETH G. *Desirability of vocational education and direction for disabled soldiers.* Madison, University of Wisconsin, 1917. 20 pp. University Extension Division, General Information and Welfare, Vocational Series No. 2.

USBORNE, H. M., ed. *Women's work in war time: A handbook of employments.* London, T. Werner Laurie, 1917. 174 pp.

Part I consists of a guide to employment, with information as to requirements, wages, where to apply, etc. In Part II several of the vocations open to women are described in detail, various writers contributing. The book carries a preface by Lord Northcliffe.

WALLIN, J. E. WALLACE. *Problems of subnormality.* Yonkers (N. Y.), Word Book Co., 1917. 485 pp. Bibliography.

A plan for the organization of various types of special and ungraded classes to meet the needs of different types of exceptional children, which has been subjected to a practical test in the public schools of St. Louis.

WEBB, BEATRICE, M. D. *Health of Working girls: A handbook for welfare supervisors and others.* London, Blackie, 1917. 103 pp.

"An attempt to do some little toward meeting the new conditions arising from the war, which have not only brought many hundreds of thousands of women and girls into factories, in addition to all who were there before, but which have led to the coming of the welfare supervisor with her great opportunities for help. The work is based on long and varied experience in dealing with girls of all classes, in hospital, in private practice, and in detailed investigations into the health of munition workers, carried out for the Health of Munition Workers Committee of the Ministry of Munitions."

This little book deals with the various disorders to which the body is liable, and with methods of prevention and cure, so simply and well that it is perhaps not too much to say that it should be in the hands not alone of every welfare supervisor but of every working girl.

WHITE, WILLIAM CHARLES, and HEATH, LOUIS JAY. *A new basis for social progress.* Boston and New York, Houghton Mifflin, 1917. 229 pp. Bibliography.

Advocates "municipal foundations for the study and advancement of community education," to apply the fundamental principles of economy to the educational system.

The American Medical Association is a non-profit corporation organized for the purpose of promoting the interests of the medical profession and the public. It was organized in 1847 and has since that time been the leading organization of the medical profession in this country. Its membership is composed of physicians, surgeons, dentists, and other medical practitioners. The Association's principal activities are the publication of the Journal of the American Medical Association, the holding of annual meetings, and the promotion of medical education and research. The Association also maintains a large library of medical books and journals, and it has a number of departments and committees which are engaged in various projects of interest to the medical profession and the public.

The Journal of the American Medical Association is a weekly publication which contains a large amount of original research, clinical reports, and articles of interest to the medical profession. It is one of the most important sources of medical information in this country, and it is read by a large number of physicians and surgeons. The Journal is published by the American Medical Association, and it is one of the most important publications of that organization. The Journal is also one of the most important sources of medical information in the world, and it is read by a large number of physicians and surgeons in other countries.

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SERIES OF BULLETINS PUBLISHED BY THE BUREAU OF LABOR STATISTICS.

The publication of the annual and special reports and of the bi-monthly bulletin was discontinued in July, 1912, and since that time a bulletin has been published at irregular intervals. Each number contains matter devoted to one of a series of general subjects. These bulletins are numbered consecutively beginning with No. 101, and up to No. 236 they also carry consecutive numbers under each series. Beginning with No. 237 the serial numbering has been discontinued. A list of the series is given below. Under each is grouped all the bulletins which contain material relating to the subject matter of that series. A list of the reports and bulletins of the bureau issued prior to July 1, 1912, will be furnished on application.

Wholesale Prices.

- Bul. 114. Wholesale prices, 1890 to 1912.
- Bul. 149. Wholesale prices, 1890 to 1913.
- Bul. 173. Index numbers of wholesale prices in the United States and foreign countries.
- Bul. 181. Wholesale prices, 1890 to 1914.
- Bul. 200. Wholesale prices, 1890 to 1915.
- Bul. 226. Wholesale prices, 1890 to 1916.

Retail Prices and Cost of Living.

- Bul. 105. Retail prices, 1890 to 1911: Part I.
 - Retail prices, 1890 to 1911: Part II—General tables.
- Bul. 106. Retail prices, 1890 to June, 1912: Part I.
 - Retail prices, 1890 to June, 1912: Part II—General tables.
- Bul. 108. Retail prices, 1890 to August, 1912.
- Bul. 110. Retail prices, 1890 to October, 1912.
- Bul. 113. Retail prices, 1890 to December, 1912.
- Bul. 115. Retail prices, 1890 to February, 1913.
- Bul. 121. Sugar prices, from refiner to consumer.
- Bul. 125. Retail prices, 1890 to April, 1913.
- Bul. 130. Wheat and flour prices, from farmer to consumer.
- Bul. 132. Retail prices, 1890 to June, 1913.
- Bul. 136. Retail prices, 1890 to August, 1913.
- Bul. 138. Retail prices, 1890 to October, 1913.
- Bul. 140. Retail prices, 1890 to December, 1913.
- Bul. 156. Retail prices, 1907 to December, 1914.
- Bul. 164. Butter prices, from producer to consumer.
- Bul. 170. Foreign food prices as affected by the war.
- Bul. 184. Retail prices, 1907 to June, 1915.
- Bul. 197. Retail prices, 1907 to December, 1915.
- Bul. 228. Retail prices, 1907 to December, 1916.

Wages and Hours of Labor.

- Bul. 116. Hours, earnings, and duration of employment of wage-earning women in selected industries in the District of Columbia.
- Bul. 118. Ten-hour maximum working day for women and young persons.
- Bul. 119. Working hours of women in the pea canneries of Wisconsin.
- Bul. 128. Wages and hours of labor in the cotton, woolen, and silk industries, 1890 to 1912.
- Bul. 129. Wages and hours of labor in the lumber, millwork, and furniture industries, 1890 to 1912.
- Bul. 131. Union scale of wages and hours of labor, 1907 to 1912.
- Bul. 134. Wages and hours of labor in the boot and shoe and hosiery and knit goods industries, 1890 to 1912.

- Bul. 135. Wages and hours of labor in the cigar and clothing industries, 1911 and 1912.
- Bul. 137. Wages and hours of labor in the building and repairing of steam railroad cars, 1890 to 1912.
- Bul. 143. Union scale of wages and hours of labor, May 15, 1913.
- Bul. 146. Wages and regularity of employment in the dress and waist industry of New York City.
- Bul. 147. Wages and regularity of employment in the cloak, suit, and skirt industry.
- Bul. 150. Wages and hours of labor in the cotton, woolen, and silk industries, 1907 to 1913.
- Bul. 151. Wages and hours of labor in the iron and steel industry in the United States, 1907 to 1912.
- Bul. 153. Wages and hours of labor in the lumber, millwork, and furniture industries, 1907 to 1913.
- Bul. 154. Wages and hours of labor in the boot and shoe and hosiery and underwear industries, 1907 to 1913.
- Bul. 160. Hours, earnings, and conditions of labor of women in Indiana mercantile establishments and garment factories.
- Bul. 161. Wages and hours of labor in the clothing and cigar industries, 1911 to 1913.
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